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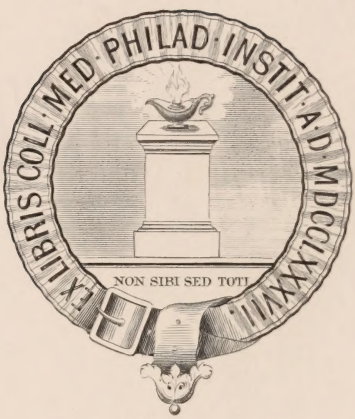
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DANIEL BRAINARD, M. D.,
J. ADAMS ALLEN, M. D.,
Editors and Proprietors.

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ORIGINAL COMMUNICATIONS.

A STATEMENT

OF THE PRESENT CONDITION OF A CASE OF RESECTION OF THE KNEE JOINT, PERFORMED IN FEBRUARY, 1859.

BY J. W. FREER, M. D.,

Professor of Surgical and Microscopical Anatomy in Rush Medical College.

The July number, 1859, of the *Chicago Medical Journal*, contains the report of the above case; but for the information of those who may not be in possession of the number referred to, I will recapitulate briefly the important points.

The patient was a female, aged 30 years, of healthy and vigorous constitution. The appearances of the diseased limb were reported as follows: Joint enormously swollen, partly from pressure of fluid within the articular cavity, and partly from œdema. Spontaneous dislocation of the leg outward, with semi-flexion and anchylosis; in front and below, a de-

pressed cicatrix, marking the situation of a former fistulous opening; the skin of natural color and temperature.

The operation was performed on the 10th of February, 1859, in the following manner: The patient being placed fully under the influence of chloroform, and in proper position, an incision was made in outline like the letter U, the inferior portion corresponding with the tibia, an inch below the lesser tuberosity, the open sides extending upward on either border of the joint, to the distance of four inches above the articulation. The flap being dissected up, the ligamentum patellæ and lateral ligaments severed, the extremities of the bones were readily exposed by forcible flexion. Having removed the patella, excision was easily completed with the amputating saw. Two inches in length of the femur and one inch of the tibia were removed.

The morbid anatomy of the joint showed an entire destruction of the articular cartilages, and portions of the bones were deeply excavated.

The treatment was that of confining the limb in a straight carved splint and foot board, with a long side splint firmly attached to the pelvis and foot. No medical treatment was required, not even anodynes, as the patient did not suffer pain enough to prevent sleep any time during her confinement in bed.

Four months after the operation, the wound had healed and the purulent discharge ceased, while union had taken place of sufficient firmness to sustain the weight of the limb without splints.

Eight months after the operation, she was able to go about with the aid of one crutch, union being sufficiently firm to sustain the weight of the body in the upright position.

At the present time—about two years since the operation—she is capable of walking without difficulty, and has thrown away crutch and cane. The limb is shortened about two and one half inches, which is compensated by means of a high-heeled shoe.

The accompanying engraving gives a very good representation of the present appearance of the limb:

I will abstain from making any remarks in regard to the propriety or impropriety of such operations, merely giving the result of the case. The subject, of late, has been sufficiently discussed by those whose experience and observation in regard to this special subject, must enable them to pronounce with some degree of certainty as to whether it is an operation fit to be performed or not. From my own investigations and observations, I am led to believe that, as far as safety to the patient is concerned, it is attended with no more, if as much, danger as in amputations above the knee. Especially where the entire constituents of the joint are removed, thus reducing the operation to the simplicity of an ordinary amputation. Where portions of synovial and cartilaginous structure are left remaining, the cure is not only protracted, but endangered, from the well-known fact that those textures have but little tendency to recover from inflammatory action, and the destructive process proceeds with characteristic tardiness.

SUGGESTIONS ON THE TENDENCY TO VACUUM

IN THE CEREBRO-SPINAL CAVITY WHICH EXISTS IN CERTAIN SPASMODIC DISEASES.

BY DANIEL BRAINARD, M. D.,
Professor of Surgery in Rush Medical College.

I. Since the discovery of the "cerebro-spinal" fluid, by Magendie, and the description of the veins of the head and spinal column by Breschet, the opinion has been gaining ground, that these vessels and this fluid have for their object in part the regulation of the degree of pressure exerted upon the nervous centres and obviating the effects of sudden and even of gradual changes.

Active as the circulation of the brain and spinal cord are known to be, it is impossible to attribute the extensive nervous plexuses which exist around and within the cranium and spinal column, to the wants of the circulation alone.

It is not my intention to describe these veins, which has been done so completely by the recent anatomists whose works are in the hands of students, particularly by Cruveillhier, Quain and Wilson; but there are some points to which I desire to call attention, as bearing especially on the objects of this essay.

Of these, the first is that the cerebral and spinal veins constitute a separate system which, in its independence, may be compared to the portal system. Thus, the veins of the spine, from the extremity of the sacrum to the top of the dorsal division, (but most perfectly in this latter,) are collected into the venæ azygos, which, instead of passing into the ascending cava, empties into the descending cava, through the medium of the venæ innominatæ and the subclavian vein, where are gathered, all the principal venous trunks emanating from thes interior of the cerebro-spinal cavity.

In the second place, it is important to remember that the venæ azygos are without valves,* and that the circulation

* Cruveillhier, Descriptive Anatomy.

through them is so free, that the ligation of all the jugular veins does not prevent the circulation of the brain from being carried on, as Cruveillhier has proved by experiment.*

It should also be borne in mind in all studies on the circulation, that the coats of the spinal venous plexuses are not only very thin, but that "the muscular element is wanting in most of the veins of the brain and pia mater."

These facts are cited in order to facilitate the apprehension of the manner and degree in which the respiratory movements act upon the brain, and influence its movements, its states of fullness and of vacuity.

II. Representing the prevailing opinions on the subject of pressure on the brain, I quote from the following works of authority:

"Magendie's experiments show that the brain and spinal cord are surrounded by fluid, the pressure of which probably antagonizes that which must be exerted through the blood vessels." "This fluid is a valuable regulator of vascular fullness within the cranium, and a protection of the brain against too much pressure from within." †

"The amount of this cerebro-spinal fluid seems to average about two ounces; but in case of atrophy of the brain, as much as twelve ounces of fluid may sometimes be obtained from the cranio-spinal cavity." "It evidently serves as an equalizer of the amount of pressure within the cranial cavity, admitting the distension or contraction of the vessels to take place within certain limits without any considerable change in the compression to which the nervous matter is subjected." ‡

It may be added, that while the above quotations express the prevailing opinions of physiologists, the experiments of

* Kolliker, Manual of Microscop. Anat. p. 689.

† Todd and Bowman, Physiological Anatomy and Physiology of Man, Am. Ed. p. 268.

‡ Carpenter, Human Physiology, Am. Ed. p. 580.

Longet and Cruveillhier seem to show that the importance of this fluid to life has been over-estimated by Magendie.‡

The discussion in regard to the brain being subject to atmospheric pressure appears to be settled in the affirmative. As the veins situated on the exterior of the cavity communicate freely with those of the interior, it follows that through their medium the pressure of the atmosphere must be exerted to some degree on the brain, unless it be obviated in some manner. The only way in which this can be accomplished, according to our present knowledge, is by the act of inspiration, in which the vacuum produced in the thorax extends in the same degree to the cavity of the spine and cranium, causing the sinking of the cerebral surface, which is so familiar to physiologists.

The heart at the same time propels the arterial blood with a certain force into the cranial cavity. The amount of this force has been very accurately measured by the instrument of Poisseuille, and has been found to vary at different times according to the degree of fullness of the vessels, during inspiration and expiration, etc. This force of the heart's action, super-added to that of the atmosphere on the veins without the spine, would seem sufficient to cause a certain degree of pressure within the cranium, and such is the veiw generally received. But although the power of the heart's action has been very accurately measured, the resisting power of the arteries and capillaries has not, and as the arteries are not only elastic, but muscular, and contract with various degrees of force at various times, it is impossible correctly to estimate the degree in which the impulse of the blood is met and resisted by the bony walls of the skull. Nor does the experiment of opening the cranium afford much light on this point, as the operation itself causes in most cases an alteration of the respiration, which increases the pressure on the brain.

‡ For a pretty full discussion on this subject, refer to Burrows, on the Disorders of the Cerebral Circulation.

Burrows, who labors to show that this pressure is constant and considerable, seems to me not to have succeeded so perfectly as might be desired in regard to so important a point, and I think that the results of the experiments of trephining animals and observations of cases of exfoliations of considerable portions of the cranium tend to show that in a state of health, repose, and *waking*, the pressure from within very nearly balances that from without.

III. Whatever difference of opinion may exist in regard to that subject, there can be none in reference to the fact that in many abnormal states, the pressure on the brain from within does greatly predominate in such a degree as to give rise to various symptoms of disease, and even to cause death.

I propose here to notice briefly the effects of pressure on the brain and cord.

These are different, according to the degree, the extent and the suddenness of the pressure.

Marshall Hall* considered the suggestion rather as a conjecture than a well matured opinion, that sleep is caused by a slight degree of physiological pressure on the brain. He suggests, that by some muscular arrangement, the return of venous blood is interrupted in a very slight degree, and the proper degree of pressure is thus produced. This view of Marshall Hall has not received the attention which it seems to me to merit. Every one is familiar with the appearances the swelling of the veins and tissues of the face, the stertor which indicate increase of pressure on the brain during sleep and obstruction of the circulation. Long before being aware of Marshall Hall's opinion, I had arrived at the same conclusion from different premises.

I observed that in subjects affected with spina bifida and hydrocephalus, the tumor in the one case and the head in the other, were tense during sleep and lax in waking. I noticed also, that after tapping, the subjects either slept little and with

* "Pressure on the brain produces at once functional inactivity."

agitated sleep, or not at all, so long as the sac remained very lax, but soundly and even with stertor when the pressure was increased to a certain point.

Pressure on the brain, whether applied by accidental effusion or otherwise, if carried to a certain point, produces loss of function; on the cerebrum, it produces insensibility and loss of voluntary movements.*

This effect is not disputed, and not only physiological, but surgical works abound with facts in proof.† The exact manner in which pressure acts, is, however, demonstrated very clearly by Flourens, to whose work‡ I refer for more ample information. The work of Burrows already cited contains much valuable information on the subject of pressure on the brain. He shows that a very considerable effusion may exist in the cranial cavity without producing insensibility.

The effects of pressure in producing congestions, sanguineous and serous effusions, have been studied by Andral, Abercrombie, Rokitansky and other pathological anatomists in so perfect a manner as to embrace nearly every variety of pathological changes likely to occur. The true interpretation of many of these appearances remains to be given, and all the symptoms of compression, and even death, occur in some cases without any mechanical cause being discovered after death, sufficient to explain them.

IV. *Want of Pressure on the Brain.*—Want of pressure on the brain, from loss of blood, from anæmia, from sudden cessation of the heart's action, etc., produces that suspension of the function of the brain called syncope. This is, I think, undoubtedly the true cause, although there are not wanting those who regard it as due to congestion. It is incredible that

* "If an aperture be made in the skull, and the protruding portion of the brain be subjected to pressure, the immediate suspension of the activity of the whole organ is the result."

† Carpenter, Physiology, p. 530, and Draper, Human Physiology, p. 326.

‡ Experimental researches on the properties and functions of the nervous system, Paris, 1842.

insensibility, on assuming the erect posture by a person who has suffered from hemorrhage, can be produced by the fullness of the cerebral vessels.

In syncope, consciousness and voluntary movements are lost, and the heart's action is feeble or suspended. In this latter symptom, it differs from coma and apoplexy, in which the action of the heart continues with force, although more slowly than natural. If the syncope be prolonged or perfect, spasms usually occur and death from loss of blood is always attended with convulsions. This fact has been particularly insisted upon by Marshall Hall and C. Bernard.

Rokitansky has pointed out very clearly the effects as well as the causes of vacuum in some states. (Path. Anat., vol. 3, p. 287 *et seq.*) "The vacuum within the skull, produced by shrinking of the brain, is filled up principally by a clear colorless serum which accumulates in the sac of the arachnoid around the brain, in the tissue of the pia mater and in the ventricles." This form of atrophy he states to be very frequent in old age, delirium tremens and mental diseases attended by excitement. "It is in itself a very important condition, but it becomes still more so from its immediate and further consequences. These consequences are as follows:

1st. Congestion of the brain, *Hyperæmia ex vacuo.* These congestions give rise to transient or protracted attacks, which simulate apoplexy and are so frequent in old age.

2nd. Actual apoplexy.

3rd. Œdema of the brain.

"Atrophy of an entire hemisphere of the cerebrum, produced in this manner, is sometimes concentric; sometimes its lateral ventricle is dilated, then it is excentric."

The possible existence of so strong a tendency to vacuum in spasmodic diseases as to give rise to rupture of vessels and effusion, seems not to have been suspected by Rokitansky.

Marshall Hall was the first in England to show that what was called Hydrocephalus, but which he called Hydrocephaloid disease, depended not upon fullness, but upon deficient

circulation. In his work "on the Diseases and Derangements of the Venous System," p. 154, he says, "This question and that of the effects of exhaustion in infants and children, open a new field of investigation." "The subject must be taken up and investigated anew." "In this manner, some hydrocephaloid, convulsive, and even croupy affections, will be received in a new aspect."

The tendency to *vacuum*, as a cause or an accompaniment of convulsive diseases, has never, as far as I am aware, been suspected, notwithstanding that facts pointing directly to it have not unfrequently been observed. The first disease in which it has been shown to exist (without being suspected) is tetanus of new born infants.

Dr. Marion Sims first pointed out (Am. Journal, April, 1854, p. 363) that in many cases the cranial bones are overlapped, the occipital being depressed. He attributed this to the position of the child and pressure, a theory which further observations have hardly confirmed.

In the same periodical of October, 1858, p. 354, Dr. Sims, after further observations, states that in some cases the parietal bones were depressed, while in others the depression of the occipital was so slight as to require a particular method of examination to detect it.

Dr. Wm. A. Baldwin (Am. Journal for Oct., 1846,) states that in some cases of this disease he found no depression of the bones. Drs. Wooter and F. W. Clement have found this depression in cases observed by them.

This displacement has been so often noticed, that its frequent occurrence cannot be doubted. It is not however always present, nor is its presence necessarily attended with trismus. Since the first publication of Dr. Sims' views, I have often observed this overlapping in new born infants. It generally disappeared when the respiration became well established. In one case in which hemorrhage occurred, it lasted for several weeks. I have seen but two cases of tetanus in infants; in one of these there was overlapping; in the other, the child

being older, the sutures were formed so that the bones could not overlap, but in this case the anterior fontanelle was depressed particularly during the paroxysm of spasm. This appearance was sometimes noticed in convulsions in children, but I have not as yet been able to determine the circumstances in which it is present.

I conclude from these facts that the overlapping of the cranial bones in infants is, excepting that which is temporarily produced by pressure during labor, the result of want of support within, and that in this form of spasm the cerebro-spinal cavity is exhausted so that these bones are all forced inward by the pressure of the atmosphere.

That this is the true theory of this displacement, seems to be pretty clearly shown by a statement of Dr. Sims, that he, in one instance, raised up the occiput with a sharp instrument after death, and that, unless supported by pressure on the side of the head, it returned to its position with force.

The mechanical means by which this want of support is brought about, must be referred to feeble action of the heart or a peculiar modification of the respiratory movements, or both. If a strong effort at inspiration be made while the opening of the larynx is closed perfectly or partially, the effect will be to exhaust the cavity of the cranium and that of the spine. The croupy and sibilant sound often heard from the respiration of tetanic patients, shows that this closure in a degree does often exist.

The appearances, on dissection, are best explained by this theory. The most constant of these, is an effusion of blood into the sheath of the spinal cord. This may exist with a thick gelatinous effusion, a swelling of the roots and ganglia of the spinal nerves, without any signs of an inflamatory affection. In some cases, no appearances have been found in the nervous centres to account for death.

There is strong reason to believe that trismus of new born infants does not differ in cause or character, in general, from traumatic tetanus. Now, one of the most constant and dis-

tressing symptoms of tetanus is known to be wakefulness; there is an impossibility of procuring sleep. Mr. Curling remarks, during the height of the disease, *it appears impossible for sleep to occur*, and if it does, the muscles are relaxed. He remarks, (p. 152 Treatise on Tetanus,) "In tetanus, as well as in hydrophobia and delirium tremens, there appears to be a conventional license for the exhibition of opium. A drachm or two drachms of laudanum, or a scruple of solid opium every three or four hours, are ordinary doses."

"The pupil is generally found contracted in tetanus."

In this disease, in hydrophobia, in certain forms of insanity, in spasmodic cholera and delirium tremens, whenever prolonged vigilance exists, there must be not only a want of normal pressure on the brain, but a peculiar action is exerted by which the physiological pressure which causes sleep and that which gives rise to the coma from opium, are absolutely prevented.

Epilepsy. — The turgescence of the vessels of the face during epileptic paroxysms and the somnolence which follows them, seem to indicate beyond all doubt, that fullness of the vessels and increased pressure on the brain, generally exist in certain stages; yet it has often been noticed that great pallor precedes the paroxysm, and Dr. Brown Sequard has, I think, attributed the attack to spasm of the arteries of the brain. I have had an opportunity which has not perhaps been offered to any other surgeon, of observing the condition of the brain in the human subject, during an epileptic paroxysm.

On the 18th January, 1860, I trephined a patient in the Chicago City Hospital for an old depression of the skull. The patient was 29 years old; sixteen years previously he received the kick of a horse on the right side of the head, about one inch above the ear, causing a deep depression of the bone. It was noticed that soon after his character changed and he became morose and taciturn. Three years after this accident, he had the first severe epileptic paroxysm. They gradually increased in frequency until the time when he came under

my care, when they were so frequent during the day as to be numbered with difficulty.

The patient was in a state of dementia and incapable of answering qustions intelligibly. He was put under chloroform, and the depressed portion of bone removed by two applications of the crown of the trephine. A sharp edge of bone had projected through the dura mater, so that an opening in this membrane was caused by its removal. At first, the surface of the cerebrum was pressed gently against the opening, but while I was waiting for a slight bleeding to stop, and wiping away the blood with a sponge, the patient was seized with an epileptic spasm. He made a long, deep inspiration, with a hissing sound. At the instant, there was a gush of serum from the wound, and on putting my finger into it to ascertain the source of this discharge, I found the surface of the cerebrum so much depressed, that the finger could be passed between it and the dura mater with ease. The spasm continued for about two minutes, during which time the surface of the brain rose during expiration, but not so as to fill the cavity, and sank during the inspirations, as at first.

For twenty-four hours, the patient seemed doing well, answered some questions and called one of his friends by name, which he had not done before for a long time; but at the end of that time, he took a spasm which lasted an hour and left him somnolent. He died fifty-eight hours after the operation.

The head was examined seven hours after death. On raising the piece of scalp which had been circumscribed by the incisions, and passing the finger into the wound, it passed directly into the lateral ventricle of the right side. On removing the vault of the cranium the pia mater was found injected with slight opalescent appearance of the arachnoid. The substance of the brain was firm. The left lateral ventricle contained two fluid ounces of serum, the right was filled with imperfectly formed pus. The examination was not allowed to go further. It however revealed the cause of the escape of the serum from the wound, during the spasm after the ope-

ration. It came from the lateral ventricle, which was ruptured by the pressure of the atmosphere during an inspiration with the larynx nearly closed. How far the dilatation of the ventricles may be attributed to a tendency to vacuum during the paroxysms or to atrophy of the brain taking place gradually as described by Rokitansky, I will not presume to say. The case affords a striking proof of the extent to which a vacuum may be produced in the cranium by spasmodic respiration.

Nor need I stop to explain the mechanism by which such movements are capable of producing appearances of congestion in the vessels, effusions of serum, hemorrhage from rupture of the vessels, etc. I will only add, that in dogs killed with strychnine after trephining, there has seemed to be a considerable pressure on the brain, and no tendency to vacuum.

As the object of this notice is simply to draw the attention of those who have fields of observation to the subject, the treatment which these views might suggest will be deferred to a subsequent paper. It may be seen readily that the plan of Marshall Hall of performing tracheotomy in tetanus hydrophobia, etc., has relation to the points in question, and that the futility of the usual treatment of tetanus taken in connexion with the views herein advanced, naturally points to stimulation, as the treatment most likely to be successful.

Experience has already led several eminent surgeons to adopt this course, among whom may be named Dr. Carmichael. He some years since published, in the Dublin Hospital Reports, some cases treated by the ordinary method with the usual results, and added, that in view of its generally fatal character he should not hesitate thereafter to resort to the use of stimulants.

Note.—In view of the almost universal fatality of trismus nascentiun and tetanus in warm climates, and the comparatively rare occurrence of these cases in this latitude, which prevents a trial of any plan on an extensive scale, I take the liberty of asking the attention of those whose situation for ob-

servation is more favorable than my own to the following suggestions concerning the method of production and the treatment, especially of trismus of infants.

It is possible that the disease is produced by an animal poison similar to but differing from that of hydrophobia. This poison may be generated in the wound, absorbed into the blood vessels, and at varying periods, and in different degrees, produce the disease.

Considering the neutralizing properties of iodine and chlorine for all putrescent and some other poisons, it is likely that one or the other of these substances, but especially the iodine, it being the less active, may be the best preventive and even curative application. Used in substance upon the surface of the body (protected from its action) and covered with oiled silk or other impervious tissue, it rises in vapor, is speedily absorbed, as its presence in the urine shows. Its application over the umbilicus might be the means of preventing trismus, although I should hardly venture to hope it would cure it when once developed to a severe degree.

CONSTIPATION.

BY J. C. BATDORF, M. D.

The following case will illustrate the course and treatment of a certain form of constipation heretofore but imperfectly understood by a large portion of the profession, for the reason, perhaps, that its occurrence is comparatively rare.

J. G., aged seven months and a half—male child—of healthy parents—weighed nine pounds at birth, appeared well in all respects until ten days old, when the bowels failing to act with their accustomed regularity, a portion of castor oil was given, producing free evacuation. From this period, the action of the bowels was irregular; from two to four days would intervene between each evacuation, if not interfered with. A physician (an empiric) was called, who prescribed a cathartic and

went away. In three days was called again; another cathartic given, producing as before two or three alvine discharges; three days more having passed without defecation, he was again called; prescription as before, result the same. Thus matters continued for near three months, the child emaciating rapidly, appetite good in the main, when the gentleman in attendance was pressed for his opinion of the case which he at first termed "derangement of the liver." His diagnosis now was, "the heart disease;" prognosis, "the child will not live three months." He continued to treat the case four months longer, giving, first, one cathartic, then another, until at last calomel was given in half tea-spoonful doses, followed by two and sometimes three large spoonsful of castor oil, to produce a single evacuation of the bowels.

Council was now called, and being a physician of the same school, he fully approved of the treatment which the child had received. When interrogated as to the probable result of the case, he replied, "the child cannot recover unless new insides are put into it."

Calomel was left to be given by the nurse *ad libitum*, *ad infinitum*, as affording the only possible chance for saving the child's life, which was despaired of alike by physician and friends. At the end of five days, there being no improvement, the medicine was discontinued and I was sent for. Found the child fearfully emaciated, weighing, at seven months and a half, only six pounds, three pounds less than at birth. On a close examination, no organic lesion was detected. Salivary and urinary secretions active, tongue moist and clean, appetite pretty good, stomach digests well, unless too large an amount of food is given at any given time, when emesis occurs, manifest some degree of intelligence. I was led to regard the case as one of simple constipation, as the result of excessive absorption of intestinal liquids, and a want of normal activity in the secretions of the mucus follicles of the bowels. It was immediately put on the following; Ext. sarsa. ℈jss, aqua ferventis ℥ ii, syr. of ipeca ʒ ii, hydr. bi-chlor. grs. iii, simple syr. ℥ ii.

The sarsa. to be dissolved in the water, then add the bi-chloride, being careful that all is dissolved, then add syrups; of this a tea-spoonful to be taken three times daily. The bowels to be kept open with castor oil, until the mixture has time to act. The oil was discontinued at the expiration of two weeks, the mixture alone being sufficient to keep the bowels open. At the end of two weeks more, the dose was reduced one half, in one week more one-fourth the original dose was given, and at the end of two weeks more was discontinued entirely, the discharges being rather too frequent. Meanwhile the child improved rapidly in flesh and appearance. It is now fourteen months old, and in perfect health, weighing eighteen pounds. There has been no recurrence of constipation, defecation occurring with perfect regularity.

The points of interest in this case are: the length of time the constipation continued.

2dly. The point of emaciation to which the child was reduced, being apparently incompatible with life; and

3dly. The efficiency of the remedy in promptly and effectually removing the constipation, and restoring the child to perfect and permanent health. What the precise *modus operandi* of this mixture is, I will not say, though I believe it acts mainly by virtue of its antiseptic and alterative properties. Certain it is that in some way it excites the secretions, restores the equilibrium between absorption and secretion necessary to the maintainance of health. The bi-chloride, I think, is entitled to a higher rank among therapeutical agents than it at present occupies.

I was led to employ it in this case, from having somewhere seen a report of the successful treatment of a similar case by the use of bi-chloride. The manner in which it was used in that case I have forgotten. I believe it was claimed in that report, that the constipation so often attending pregnant females was, in many instances, owing to the same pathological condition, requiring a similar treatment. In this opinion I fully concur.

MISCELLANEOUS.

STIMULATION *VERSUS* DEPLETION.

BY PATRICK FRASER, M. D.,
Physician to the London Hospital.

The question as to the utility or the non-utility of venesection in the treatment of disease, has engaged the attention of men from the earliest stages. Much has been written upon it, conflicting opinions offered, and unsatisfactory conclusions drawn; but it is reserved to the observer of the present century to witness the great contest on this matter.

The fact cannot be ignored that a remarkable change in the treatment of those alterations in the human frame from a state of health which require the employment of stimulative, and the avoidance of depletive, measures, prevails in the profession. The difficulty is to reconcile the very discordant opinions expressed as to the causes for this change, and their operative extent.

One party asserts that venesection never was, and is not now, necessary, but positively injurious. Another party holds that venesection is now, as formerly, highly beneficial in many cases of disease; although it is now less requisite than formerly. Another, or third party, cuts the Gordian knot, and resolves the whole difficulty into a change of fashion in physic.

One might imagine, judging from recent writers, that this change began about the year 1815, and was perfected about 1833, but that vacillations of opinion on this very subject have been expressed long ago, and that our ancestors have in this, as they have in almost every other matter, foreshadowed changes, will be borne out in the sequel.

The fashion party may be dismissed by observing that the allegation as to the frequent changes, do not apply in the present matter. The fashionable changes—admitting the term—are in mere matter of detail, not of principle, and refer to the substitution of one drug for another; but it is to be re-

membered that the new remedy has always more or less affinity to the one discarded, and has a similar or approximative action on the animal tissues.

The disputants may now be divided into two parties. The change is attributed by one party to our increased knowledge in the application of physical diagnosis; by the other, to a progressive alteration in the type of disease, or, as Sydenham has called it, "constitutio morborum stationaria."

I am induced to write this paper in order to place before the profession certain tables derived from the statistics of the London Hospital, the results bearing upon some very remarkable questions. But, before doing so, I think that it may not be uninteresting to many readers to give a brief history of the various opinions held upon venesection from the earliest ages, and for the further guidance of future investigators.

I may say, that having consulted nearly one hundred ancient and modern authors, I was suddenly checked in my (perhaps hopeless) labor by the statement of "Dr. Carol. Fred. Nopitisch," a physician of Nuremberg, who cites thirty writers on bleeding before the Christian era, and no less than seven hundred and ten from that period to the year 1830; and we pretty well know that the number is not small since. With this statement before me, I closed my portfolio in dismay, and determined to try something in the way of the Baconian rule, trusting that by a collation of facts, more than by theory, to arrive at some result.

First Epoch.—*From the earliest ages down to the time of Hippocrates.*

Bleeding was practised by the ancients under various impressions, such as that its effects were evacuant, revulsant, derivative, alterative, excitant, depressant. Prolix disquisitions on these various supposed powers prevail in their writings, and the fact of these opposite powers having been attributed to venesection exerts no small influence on the practice of medicine in the present day.

Our information as to the origin of bloodletting is imperfect, owing to the dark traditions of the ancients.

The Egyptians disapproved of bleeding, but the following is the version by that people of its rise: It was observed that when the hippopotamus had a headache, (whether after an undue potation is not stated,) he emerged from his watery bed, and performed the operation of bleeding by striking his ponderous foot upon some convenient sharp stone, thereby causing

a flow of blood, which he arrested at pleasure by a pledget of mud. This interesting animal has thereby the credit of having been the earliest surgical operator, as well as having taught mankind the value and use of styptics.

Pliny (His. Nat., viii., 25, 26), in a more elegant fiction, states: "The sea-horse, when too full of blood, scratches himself on rose-bushes, and then staunches the flowing of the blood by rolling in the mud." Our rose-bushes must have deteriorated in their strength of prickles, for very few of the present day would much affect the hide of the modern hippopotamus. But however this may be, it is clearly recorded, like all other matters of ancient history, that Podilarius, one of the sons of Æsculapius, practised venesection, A. C. 1134, and that the first bleeding was made on the daughter of King Dametus. The fee was liberal, being not only the patient in marriage, (who we are bound to believe was both young and beautiful,) but the Chersonese to boot for a dowry.

From the earliest period of our race, the nasal and catamenial fluxes would be observed, and noticed as often beneficial; and down to the present time there have been practitioners who have taken spontaneous bleedings as indicative for the need for general depletion. We are therefore justified in concluding that artificial means of relief would be resorted to—if not, like the polished Tahitians, by opening a vein, at least, like the rougher natives of Guinea, by plunging a knife into the flesh at hap-hazard.

Arriving at more authentic periods, we know that Pythagoras (B. C. 580) disapproved of bleeding; that Hippocrates (B. C. 420) speaks of it as a practice well known, and that he himself practised it; for the name Anaxion is given as that of one of his patients who was bled on the eighth day of pleurisy. This being the only recorded case in which bleeding was practised by Hippocrates, is by many persons considered a proof that he did not often bleed. This conclusion is not supported, however, in other parts of his writings, for this truly wonderful man gives repeated and careful directions as to the veins to be opened, and the manner of the operation; and he gives a specific recommendation to practise it in cases of apoplexy, pneumonia, and pleuritis; and also advises that the bleeding from wounds, except those entering the "ventrem internum," should not be suddenly arrested, as by its flowing inflammatory action might be lessened.

In Sprengell's translation of the "Aphorisms," Sec. 10, Aph. 29, we have the ancient oracle speaking thus: "But if

a violent fever should require bleeding, to do it in its full force and height would be to kill the patient; we must stay therefore, till the fever abates, and not bleed so much at once, but repeat it rather." This axiom is repeated by Celsus. At Sect. 10, Aph. 23, he again speaks: "Letting blood by the opening of a vein is no new thing; but to do this upon account of every disease is entirely new." Verily the oracle spoke then as would truly now apply.

SECOND EPOCH.—*From Hippocrates to Paracelsus.*

In the work of M. Freteau on "Bloodletting," there is a brief account of the successors of Hippocrates, of which, with some alterations and additions, we now give an abstract.

The most distinguished disciples of Hippocrates, namely, Diocles and Praxagoras (B. C. 340)—practised venesection; while Chrysippus and Erasistratus denounce the practice; and shortly afterwards Cleophantes employed wine extensively as a remedial agent. We may suppose, therefore, that at this remote period the discussion began, and has continued with varying fervor to our own time, as to the respective merits of depletion and stimulation in the treatment of disease.

The successors of these physicians departed into the different countries under the Roman government, and disseminated and supported the doctrines of their masters according to their adherence. For instance, Asclepiades (B. C. 90) rejected all evacuant remedies, especially bleeding; while Themison approved of its moderate use. This latter passes as the first physician who employed leeches, although there is mention made of their use so early as B. C. 140. Celsus (A. D. 10) bled children, old men, and pregnant women. Aretæus (A. D. 90) speaks of venesection, leeching and blistering. Galen (A. D. 131) declared himself an adherent to the principles of Hippocrates, and bled frequently; his chief indications were to evacuate the redundant blood in a plethora, or as a revulsant; and he appears to be the earliest writer to specify the exact quantity of blood to be extracted in special cases of disease; and in certain cases he bled to the extent of inducing "deliquum animi." About the year 280, Severus, Antyllus, and Apollonius practised arteriotomy and scarifications. The successors of Galen pursued his mode of treatment. For example, Orabasius, in 360; Ætius, 540; Alexander of Tralles, in 570; Paul of Ægina, in 670; Mesne, Serapion, Rhazes and Avicenna, during the ninth and tenth centuries. The latter states that the usual quantity of blood in a man's body is 25

pounds, and that a man may lose 20 lbs. at the nose, "and not die." Was this ever proved? Avenzoar, Averrhoes, and Albucasis, in the twelfth century; and the doctrines of the schools of Salernum, A. D. 1000; of Montpellier, A. D. 1200; of Paris, A. D. 1300; also, Gui de Cauliac, were Galenistic. The sect of Chemists appeared A. D. 1400, and their influence rather retarded the progress of the healing art, and the act of bleeding was reprobated. Further information upon the opinions of the ancients on venesection, will be found in an excellent commentary in Adams's "Paulus Ægineta," p. 319.

In the works of all the men whose names have been mentioned, although bleeding is more or less recommended, then, as now, long and angry disputes occurred as to the prophylactic and curative powers of bleeding, as well as to what veins or arteries should be opened in certain diseases. One and all, however, agree in the necessity for care in the adoption of venesection, and that so powerful a remedy should be employed only "when the disease is of a strong nature, the patient in the vigor of life, and the strength unexhausted." Celsus goes so far as to say, that "to bleed a man in the first stage of fever is to kill him;" and Galen takes the precaution to give lists of diseases in which venesection should never be practised, as follows: cacochymia, plague, dysentery, low fever, intermittent fever, serous apoplexy, dislocations; and in those in which it should be only rarely practised—viz., fractures, renal calculi, small-pox, measles, inflammatory fever; but he recommends it strongly in sanguineous apoplexy, phrenitis, and cerebritis; and we shall see that the moderns have not much more to say on the matter.

Third Epoch.—*From Paracelsus to Harvey.*

In the fifteenth century, Paracelsus commenced a reformation in medicine—a man who, "with all his faults," did good service as a thorough reformer to the science of Physic. It is quite certain that a man of his temperament would not stop short in the employment of any remedy promising to effect sharp and speedy cures. We consequently find that he practised venesection: but under what, if any, restrictions, we have no information. A reaction now took place, and Botelli, in 1577, advocated excessive bleeding, to the extent of two or three pounds at one operation, and this repeated four or five times at short intervals.

The cases on record of the large quantities of blood which have been lost without apparent injury, would lead to the con-

clusion, that the average quantity of blood in the body—viz., 30 lbs. in the adult, has been under-estimated: for example, "A phlegmatic man lost by the nose, mouth, and urine, 18 lbs. of blood, and yet there remained so much in him, that on the application of cupping-glasses, they were instantly filled with blood." (Schenck, Obs. Med., i., p. 172.) Brapavolus had a lady under treatment, in whom twenty-two pounds of blood passed from the nose; she recovered by the use of several remedies "one whereof was phlebotomy." (Comment. ad Aphor., xxiii., 15.) Marcellus Donatus (C. xxiii.) gives a case of eighteen pounds of blood issuing from the nose. Amatus Lusitanus relates a case where, within five days, twenty pounds of blood passed from the nose; another, forty pounds in six days, "whom he yet cured by phlebotomy." Montanus says he "cured one of the 'emeroids,' which bled every day for forty-five days, two pounds of blood and more." (Schenck, Obs., Med., xiii, p. 342.) Anculanus gives a case of twenty-five pounds of blood being lost in three days from a wound, and recovered; and several others are related, in which six and twelve pounds of blood where voided by the nose in a few hours, or days, but recovery always took place. Riolan has taken, in twelve hours, five pounds of blood without injury. He estimated that half the quantity of the blood in the body might be extracted without danger; and as he considered the whole quantity of blood varies in different nations, he arrived at the estimate, that a German may loose 15 lbs.; a Frenchman, ten pounds; Spaniards, Moors, and Asiatics, less in the order of their standing. That Botelli had supporters in the practice of excessive depletion, we know from Asteus, a writer in 1583, who argued that ancient as well as modern physicians erred in bleeding too little rather than too much. Van Helmont, at the same period, although he did not denounce venesection, exposed the evils arising from excessive depletion. Although we are not prepared to subscribe to his celebrated motto, "Ego sane nemini sanguinem mitto," still it is a fair question whether the excessive bleedings enjoined by Botelli and his followers, were not more injurious than the total rejection of venesection by Van Helmont and his followers. Various writers—for example, Almarico, Blondelo in 1620, J. F. Buchone in 1629, Stahl, Thouvenal, Martianus, Lancisi, Baglavi, Pascoli, Forestus, Peater, Hoffman, Amatus, and, last, Victoris Trancavellus, supported more or less the doctrines of Van Helmont; but to the credit of most of these men, their condemnation of bleeding did not

extend to the utter exclusion of it as a remedial agent, but to the avoidance of its abuse only. The last named writer enters more minutely in his condemnation by designating the diseases in which venesection ought not to be practised—viz., delirium, epilepsy, paralysis, catarrh, ophthalmia, nephritis, hypochondriasis, continued fever, scirrhus uteri, suppressio mensi, menorrhagia, ending by saying, "Nos non debere nimis proclivis nimisque liberales esse in detrahendo sanguine, ne dum Scyllam fugimus in Charybdem incidamus."

We see from the foregoing, that bleeding has been employed as a remedial agent from the earliest period of the history of the human family, but upon the most opposite and sometimes illogical principles.

FOURTH EPOCH.—*From Harvey to the Middle of the Eighteenth century.*

We now arrive at the important period when Harvey, in 1619, first publicly taught the doctrine of the circulation of the blood. It might be expected that upon this grand discovery, the wavering opinions as to the practice of bleeding would have become fixed and certain; but this consummation, "most devoutly to be wished," has not been realized; the same discrepancy of opinions and vacillations in practice are manifested in the writers of the period now under consideration. Unable, apparently, to determine on the real question whether, in certain diseases venesection should or should not be performed, the writers now busied themselves in angry discussions as to which vein should be opened in certain diseases, such as veins of the arm, hand, ankle, foot, tongue, nose, canthii majores, temple; in fact, each part of the body had some one to assert its priority. Matthæus Curtius, in the fourteenth century, enters fully into this question; and about 1534 several writers gave opinions very learnedly on the subject. For example: Leonardi Fuchsii—"Apologia contra Hieremiam Thrinerum de Venesectione in Pleuritide"—taught that the vein of the affected side ought to be opened; whereas Andræ Vasalii at the same period affirmed just the contrary; and it is not until the year 1741 that M. Martin, in his treatise, gives such instructions as may be followed with safety and propriety at the present day. He tells us that bleeding is indicated when the patient is in the flower of his age, the strength unimpaired, the complexion good, the pulse equable, full, and strong; if he has had previously good nourishment, and if there is general heat of surface and no organic disease: that

it is contra-indicated when the patient is enfeebled and the constitution not strong, the skin and extremities cold, the pulse feeble, soft, and intermittent; if the patient has led a laborious and badly nourished life; and if there should be organic disease. Sebastiano Bado, in 1663, asserted the absolute necessity for venesection in small-pox, and the other exanthemata. Also, M. Patin, a famous physician of Paris, writes in the year 1680, "There is no remedy in the world which does more miracles than bleeding." On the other hand, we find Ramazzina, Richter, and others strongly condemning it.

At the same period, equal differences of opinion prevailed amongst our own countrymen. Sydenham (A. D. 1666) says: "Primum in curatione locum phlebotomiæ attribuo, quæ sine salutis periculo hic omitte nequit." Heberden says: "Febres ardentes raro sanantur sine detractione sanguinis copiosa et repetita." We have a treatise in 1685 by Joannis Franciscus de Francisco, "De Hodierno Practicantium abusu Sanguinem Mittendi semper in Febribus." There is also a most elaborate treatise by Henry Stubbe, a physician in Warwick in 1671. He defends the practice of phlebotomy against the "audacious and impertinent strictures" of "one G. Thomson," contemptuously called "Bacon-faced," a "pseudo-chemist," and a "pretended disciple of my Lord Verulam." This said G. Thompson seems to have had certain strong and not always incorrect opinions upon his subject. He tells us that "We are taught by Divine Writ that in the blood—the *spiritus rubeus*—is life;" that "one would think that it should put a stop to their prodigal, profuse bleedings, if they did but consider with what difficulty nature brings this *solar liquor* to perfection." He was no fool when he observed, "They should never attempt—yea, rather abhor—to enervate in the least, by the lancet, the strength with its correlative blood and spirits, without which there is no hope of a cure; for," he adds, "manente causa, manet effectus." That Dr. Stubbe was honest in his belief as to the efficacy of venesection is fully evinced by his "practising what he preaches." He tells us: "In short, I have myself been let blood above fourscore times, and yet am lean; and so far from being feverishly inclined, that I never had any, except the measles once, and small-pox twice, and twice a tertian ague." Rejoice, ye physicians of the present time, at your exceptions!

An array of learned theses during this epoch, and closing in upon the end of the century, upon this universal subject,—"De Recta Sanguinis Missione,"—sufficiently attest the divi-

ded spirit of the time: Dr. White, in 1712; John Van Coxie, 1725; Dr. Mentyles, 1744; John Huggan, 1771; Francis Cuel, 1775; William Drannan, 1778.

FIFTH EPOCH.—*From* 1750 *to the present time.*

It is manifest that our forefathers were fully alive to the difficulties involved in the question of the employment of venesection in disease, also to the necessity for care and discrimination in its application; that they held in view the age, sex, temperament, condition of patient, climate, and prevailing diseases; that they were, as we are, often sorely puzzled by discordant opinions; and it is painfully evident that in ancient, as in modern, times blood has been let when it had better not, and not let when it had better been let. Clutterbuck felt this strongly, and he, not very logically, comes to the conclusion that bleeding is useful when it is useful, and hurtful when it is hurtful: somewhat like the justice, who, in his summing-up in a doubtful case, consoled himself by remarking, "If I'm right I'm right, and if I'm wrong I'm wrong."

Several writers allege that the change from depletion to stimulation dates from the first invasion of the cholera morbus in 1830; but we have in evidence that it began much earlier—in fact, that similar discussions date from a very early period. Lind, in 1774, in his essay on the "Health of Seamen," p. 159, says that the physicians in the West Indies began to doubt the benefits of venesection. Hewson, in his original paper, (vol. lx., p. 406, "Philosophical Transactions,") doubts the propriety of bleeding. That Cullen had misgivings is obvious. In book i., par. 139 and 362, of his "Practice of Physic," he says—"Nothing is more evident than that bloodletting is one of the most powerful means of diminishing the activity of the whole body."...."It is, however, to be attended to, that a greater evacuation than is necessary may occasion a slow recovery; may render the person more liable to a relapse, or may bring on other diseases." (par. 140.) "From all this it must appear that the employing bloodletting in certain fevers requires much discernment and skill, and is to be governed by the consideration of the following circumstances:—1st, the nature of the prevailing epidemic; 2nd, the nature of the remote cause; 3rd, the season and climate; 4th, the diathesis present; 5th, the period of the disease; 6th, the age, vigor, and plethoric state of the patient; 7th, the patient's former diseases and habits of living; 8th, the appearance of the blood drawn out; 9th, the effects of the bloodletting that may

have been already practised." (par. 142.) It may be seen that Galen and Trancavellus had long before laid down similar rules.

M. Freteau, in 1816, says: "De nos jours, les constitutions sont moins fortes, les individus moins plethoriques, les maladies franchement inflammatories moins communes."

So early as 1817, Dr. Christison noticed a change in the treatment of fever; but especial attention was drawn to this subject by him in 1834. He writes thus: "Our patients ceased to sustain free venesection, a few ounces of blood bringing on faintness, and the constitution refusing to rally afterwards." The contrast of the foregoing observation with what he writes in his thesis in 1819, is most remarkable. He there describes the "pulse as being at 160, hard, and incompressible; the temperature of the body at 107°; and the blood spouting out with amazing force on opening a vein." At the same period of time, Dr. Macintosh, a man of great energy and originality, who had for many years advocated strongly the practice of of bleeding, especially in the cold stage of ague, writes, in vol. i., p. 472, of his "Practice of Physic," "within the last fifteen years I have seen several cases where considerable injury had been inflicted by very large bleedings."

In the year 1820, a stronger reaction party existed in the College of Edinburgh, as indicated by several theses of that date, in favor of venesection. The following are examples: Wm. Garland says: "Inter omnia remedia ad morbos varios sanandos, quibus corpus humanum obnoxium est, nullum majore effectu vel eventu feliciore quam sanguinis detractio adhibetum." John Barne (1821) says: "Medici omnibus sæculis missionem sanguinis remedium esse eximium arbitrati sunt." John Halkenston (1821): "Nostrorum temporum opiniones variæ sunt sed in universum medicorum animi magis de hoc remedio, quam de plerisque aliis consentiunt."

It was about this time that we have it also recorded by truthful and acute observing physicians,—for example, Gregory, Radcliffe, Alison, Watson, and others,—that they required in their own persons, for acute disorders, large depletions, which were followed, as attested by all them, with great and unmistakable relief to their sufferings. We have seen also, in our explorations of the writings of ancient as well as modern authors, that the employment of bloodletting, as a remedial agent, was not always in a fixed ratio. Unfortunately, the medical writers of the different periods simply state the fact, but have not left us information as to their opinions of the

causes. That causes do exist seems certain, for surely the cessation in the employment of bloodletting has followed, and not preceded, the change.

We have now reached a period in which even more angry and censorious discussions took place than heretofore, between men whose opinions demand reverential, careful, and watchful attention. Dr. Alison and Dr. Bennett were the champions. Both agreed as to the fact of a change in treatment having taken place, but differed in opinion as to the cause or causes. The former attributed it to an alteration in the type of disease, thereby inferring some occult change in the human constitution; and if this be true, we may also truly infer that the excessive bleedings practised by our forefathers were probably quite right and necessary, thus rescuing their mode of practice from the unmerited obloquy which has been cast upon it by several writers. Dr. Bennett places the change to an increased knowledge in the art of diagnosis. We have no intention of entering minutely into the merits of the late controversy, but we would observe, that it appears to us that Dr. Alison, in allowing his antagonists to apply their arguments to pneumonia alone, weakened his ground; for if this improved diagnostic power be worth anything, it ought to apply to all diseases which is not attempted; but to all diseases the limitation in bloodletting applies. Again; we admit that through our increased diagnostic power, we are better warned not to bleed in pneumonia after consolidation of the lung has taken place. But this does not explain why even in the acute state of crepitation bloodletting is seldom resorted to now, but which would have been practised thirty years ago, *pleno rivo*, even in the absence of the assumed superior diagnostic power, and with great benefit to the sufferers; neither will it explain the advance in the use of stimulants *pari passu* with a decrease in the employment of depletants.

Drs. Christison, Alison, and others, have alleged the change in the type of disease to proceed from certain atmospheric influences. The former dwelt strongly upon the impoverished state of the poor population, evinced by the scorbutic diathesis, and the prevalence of cholera; but the fact that all ranks of the people, from the patrician to the peasant, have become subservient to the change, invalidates poverty as the main cause, and we know that the change had begun long before the modern cholera appeared. This party does not, as has been alleged, declare that the *modus operandi* of inflammatory action, or its effects, is changed; but simply that inflammation is not now attended by high arterial action.

It has not been, and probably never will be, proved what causes are in operation to effect the remarkable variations which have occurred in the symptoms of disease, and in our anxiety to appear to have some definite views, we are almost impelled to the *non causa pro causa.*

We can scarcely avoid the conclusion that certain causes are operating in cycles; that, in fact, the human family are subjected to periodic changes, impressing, as it may happen, a stenic or asthenic character, on the prevailing diseases. If this idea should be recognised as a fact, the extraordinary discrepancy of opinion as to the curative value of bloodletting would be reconciled and explained. That this change is not merely local, but pervades the length and breadth of the land, and that it has been recognized throughout Europe and America, is shown by the general intolerance of bleeding, not only in man, but amongst domestic animals, as proved by veterinary practitioners. In our experience we have witnessed exemplifications of this change. We remember cases similar to those commented upon by Stephens, Turnbull, Watson, Symonds, Hastings, Richardson, and others, where the injected eye, flushed face, burning heat of the skin, violent arterial throbbings; the incompressible, sharp, and wiry radial pulsation; urgent dyspnœa, a red tongue, intense headache, and other local pains, unattended with muscular debility, appeared to render bloodletting imperative. Contrast such cases with those, with few exceptions, now witnessed in town and country practice, in which there is little or no heat of skin, no arterial excitement, feeble and easily compressed radial pulsation, a white, loaded, and flabby tongue, a pearly-white conjunctiva, not much pain, but extreme prostration, urging to the employment of stimulants.

We have reason to believe that these changes in the type of disease occur sometimes at very short intervals. In China, during the month of February, 1830, an epidemic fever occurred amongst the English sailors, in which the tongue was white and loaded, no arterial excitement, and no pain. In the month of May following, a second epidemic appeared, during which the symptoms were—headache; pulse from 80 to 110, full, and bounding; tongue clean; severe epigastric pain. The following comment was made at the time: "We believe this fever to be of a different type from that witnessed in February;" and the question is put, "Is bleeding necessary in both types?"

The history of influenza will furnish many similar instances.

Everyone knows the variations which have occurred in the symptoms of this malady, requiring a complete change of treatment. We know, indeed, that from the earliest ages the symptoms and organic lesions have varied in similar epidemics. There have been variations noticed even in the same epidemic at different periods of its history.

In the foregoing paper, we have seen the small result after all the disputation; and although the grand fact that an extraordinary increase in the employment of stimulants, and disuse of depletants, is going on is generally recognised by the profession, it has not been demonstrated by undeniable statistics. This we shall proceed to do. The tables *in extenso* would occupy too much of the valuable space of this journal, but we consider that the following summary will be sufficient to enable the reader to draw inferences and deductions. Seeing that the bloodletting controversy is still open, and as in its settlement there are involved points of great practical importance, it behoves all practitioners to note carefully the effects of the stimulative or depletive system in the treatment of disease; for it becomes a practical as well as a scientific question to ascertain the difference, if any, in the mortality in the practice of medical men, who notoriously prescribe excessive, moderate, or no stimulation at all, or the reverse; for only in this way, in this particular matter, can error be detected and truth substantiated.

It becomes more imperative in us to urge a general statistical inquiry, seeing that, in this the first published document of the kind we are obliged to admit that the results are negative and contradictory; and it will be only by a collation of similar reports that our aspirations may be realized.

We admit that, before we can draw absolute truth from statistical data in the matter, we ought to have an equal number of cases—the age, sex, and previous habits—an equality in the intensity and duration of the symptoms; for it is an inseparable element of disease that in no two cases will the phenomena be exactly alike; and it is this very dissimilarity that calls for the acumen and observing power required by the medical practitioner. But it is evident that, if this rule were rigidly enforced, we should be deprived of all aid from medical statistics; and we must be content, therefore, with approximative truth.

Considering the importance of the question at issue, whether taken in a sanitary, prophylactic, or financial view, it would

be highly valuable to possess authentic records as to the practice of venesection and other depletory measures, and of the expenditure of the various items comprised under tonics, stimulants, etc., with the corresponding mortality, in the various hospitals of London, and elsewhere. Unless this general information be possessed, a serious error would arise in an attempt to generalize upon limited data. We must take into account also the varying and unavoidable causes in constant operation, quite irrespective of any peculiarities in the mode of treatment and diet, such as good, bad, or indifferent drainage and ventilation, and all other sanitary conditions which must affect the mortality of a large general hospital.

In the following summary of the tables, we give, for the convenience of comparison, three decennial periods.

In 1835, there were treated as in-patients in the London Hospital, 2735 persons, of whom 277 died, being at the rate of ten per cent. During that year, there was expended for these 2735 patients, the sum of £615 for beer; £346 for wine; making a total of £961. To counterbalance the effect of these stimulants, blood was drawn by 33,950 leeches, to say nothing of bleeding and cupping, then largely practised.

In the year 1845, there were treated as in-patients 3625 persons, of whom 228 died, being at the rate of 6¼ per cent.—These patients consumed, in the course of their treatment, wine and spirits to the amount of £848; or, to be more minute, they drank 10 gallons of brandy, 236 gallons of wine, 10 gallons of gin, and 96 gallons of spirits of wine besides were exhausted. To meet this alcoholic accumulation, blood was drawn by 33,800 leeches, to say nothing of venesections, cuppings, etc.

But what transpired in 1855? In that year, 3947 patients were treated in the Hospital, of which number 294 died, being at the rate of 7½ per cent. This number of patients consumed during the year, 143 gallons of brandy, 1153 gallons of wine, 60 gallons of gin, and 144 gallons of spirits of wine were exhausted, at a cost of £1796, as against £848 and £961 for the two previous decennial periods. But now appears the strange fact, that during the year 1855 the effects of this accumulation of alcohol were diminished by the quantity of blood drawn by 4400 leeches only, with, perhaps, not a single venesection, and at an average of not more than two cuppings per week, as against 33,800 and 33,950 leeches, frequent venesections and cuppings, for the two previous decennial periods.

Pursuing this inquiry, it is found that in the year 1837 there

were used in the London Hospital only 29 oz. of quinine, and 101 lbs. of bark. Whereas in the year 1857 the consumption of these and analogous drugs were as follows: 54 oz. of quinine, 478 lbs. of bark, 600 oz. of the disulphate of bark, and 47 oz. of the quinine with the citrate of iron. The number of patients in 1837 being 2961; in 1857, 3935; and the per-centage of deaths being respectively—for 1837, 14 per cent.; for 1857, 8 per cent.

The two years above noted are sufficiently approximate to allow the same line of argument as for 1835 and 1855.

Attention should be drawn to the fact that in the year 1844 there was expended for stimulants only £821, being the *smallest* amount during a period of 22 years; and that the mortality in that year was 6 per cent. the *smallest* per centage of mortality during the said period of 22 years. We are not quite satisfied but that, if a rigid inquiry were made, the largest mortality would be found where the largest quantity of stimulants was given. It is to be observed that in the year 1851, when the number of patients—viz., 4051—was larger than in 1857—viz., 3935,—the mortality was nevertheless greater during the latter year, as 8 per cent. to 6.50 per cent.; although the increase of expenditure for articles of luxury, &c., during 1857, exceeded that of 1851 by the large sum of £962.

Another puzzle is presented on looking upon the results of the year 1858. We have in this year a less consumption of wine and spirits (namely £573 3*s.* 3*d.*) than during the preceeding 23 years, the average for the 24 years being £1055; but the quantity of tonics remains nearly the same as in 1855: —Ammonia sesqui., 140lbs.; quinine, 50 oz.; quinine and citrate of iron, 5lbs.; bark, 511lbs.; disulphate of bark, 660 oz.; leeches, 3900.

The table from which the following additional summary is compiled brings into view rather startling and puzzling facts. It extends over a period of ten years, and therefore is a perfect average, and we have divided it, for our present purpose, into two quinquennial periods. It shows a direct rising increase annually in the expenditure of wine in the treatment of their patients by the physicians and surgeons of the hospital; and it so happens that from changes in the staff this decennial period embraces the practice of six physicians, rendering the alterations in, at all events, the medical practice less likely to have arisen from any peculiar or personal views.

To economize space, we have not given the quantities employed by each individual physician or surgeon, but the aggregate.

From the year 1849 to 1853 inclusive, the annual average quantity of wine employed by each physician was 4928 ounces. During the same period the annual average number of patients under the treatment of each physician was 390; the annual average mortality being 9-68 per cent.

From the year 1854 to 1858 inclusive the annual average quantity of wine employed by each physician was 12803 ounces. During the same period the annual average number of patients under the treatment of each physician was 391; the annual average mortality being 11-87 per cent.

In the surgical wards a similar unexpected result is observed.

From the year 1849 to 1853 inclusive, the annual average quantity of wine employed by each of the surgeons was 17,533 ounces. During the same period the annual average number of patients under the treatment of each surgeon was 1075; the annual average mortality being 4-48 per cent.

From the year 1854 to 1858 inclusive, the annual average quantity of wine employed by each of the three surgeons was 38,016 ounces. During the same period the average annual number of patients under the treatment of each surgeon was 1036; the annual average mortality being 5.06 per cent.

It may be supposed that, as regards the medical cases, this unexpected result proceeded from a difference in the kind and severity of diseases which were fatal during the periods included in the calculations. Information on this point in these cases is not available; but as regards the surgical cases the record is complete and correct, and from it we learn that this cause does not operate, as the remarkable fact is demonstrated by another table that the annual average number of each kind of accident during a period of ten years is very nearly alike; thus adding one more illustration of the unexpected fact elicited by statistics—namely, that the mechanical causes producing accidents in a fixed population are pretty permanent; for we cannot assume that there has been an unusual severity in the character of the accidents. The table gives a more extended basis, as regards surgical cases, to this inquiry, as it includes the outpatients as well as the in-patients; and we see at once that the same regularity continues in the kind of accidents with the larger number of patients. We repeat that we should be very sorry even to attempt to generalize on the limited data now presented to the reader;

nevertheless we do consider that the facts brought out in these tables are of sufficient weight and importance to warrant us in asserting that the profession ought to pause in an indiscriminate employment of stimulants and tonics, especially the former, in the treatment of disease, even of apparently an asthenic character. Many excellent men—Mr. Higginbottom, for example—have denounced the stimulant treatment *in toto*. We are not yet prepared to go so far, for where there is so much of doubt, it behoves all of us to entertain tolerant views. —*London Lancet.*

ON MUSCULAR POISONS.

BY M. CLAUDE BERNARD.

There exists other poisons which equally destroy the vital properties of the locomotive apparatus, although a totally different histological element becomes the seat of disorganization. We allude to the toxic agents which abolish contractility in the muscular tissue; you will find them infinitely more numerous than those which confine their action to the nerves. Among this class of bodies, digitalis and upas antiar* have already been mentioned; and the attention of American physiologists has lately been drawn by Drs. Hammond and Mitchell, of Philadelphia, to the properties of two other substances which are known by the Indian names of Corroval and Vao. Their action is similar to that of upas, although of greater intensity. The active principle of the veratrum album or veratrine, a substance now frequently employed in practice, also exerts its influence upon the muscular fibre, to the exclusion of all other tissues; and a large number of poisons, with the chemical composition of which we are imperfectly acquainted, evidently belong to the same class.

The small arrows now placed before you were forwarded to us by M. Boussingault. These weapons are extensively used in South America. The nature of the substance with which they are impregnated is still a mystery to us; they are supposed to have been charged with woorara, but their action is of a totally different kind; the muscular, not the nervous, fibres are affected by the wounds which they inflict. Although unable to state in a positive manner what this poison really is, I am tempted to believe that the venom of toads is the substance employed. The Indians of New Grenada are know to

* There exists another kind of upas, which is merely a preparation of strychnia.

make use of a small variety of this animal, which is found in great abundance in that country, for the purpose of poisoning their weapons. After collecting a large number of toads, they impale them upon wooden spits and roast them alive. The heat causes the animal to eject its venom, in which the arrows are dipped. This latter substance is known in fact to exert a most powerful action on the muscular tissue. But the unknown principle with which these arrows are impregnated differs so completely in its properties from those usually attributed to animal poisons, that we shall seize the present opportunity to enter into some considerations on the subject of venoms in general, and that of the toad in particular, our conclusions being the result of the researches we have lately undertaken on this interesting and hithorto obscure part of toxicology.

The effect produced on animals by these poisoned arrows would appear at first sight to be strictly similar to those produced in our own climate by the venom of toads; but when we enquire into the chemical composition of this new substance, we find it to be a perfectly stable compound, the properties of which are not destroyed by plunging it into boiling water or dissolving it in alcohol. The arrows which have been allowed to rest for a certain space of time in this latter solvent, are found to have lost their destructive power, although no change has taken place in their dark-brown color; and the liquid in which they have been kept being gradually evaporated, the solid residue left behind appears to contain the active principle which imbibes them, for on redissolving it in water, a poison is obtained which produces on animals the same effects as the arrows themselves.

But the opinions usually entertained with respect to venoms are entirely opposed to such a result. Animal poisons are in general considered as resembling ferments in their chemical properties, being easily destroyed by the action of heat, and modified by dissolution in alcohol and other powerful solvents. We ought, therefore, in accordance with generally received opinions, to have surrendered our former hypothesis; but however satisfactory the inductions drawn from previously ascertained facts may appear, an experimental verification is always indispensable in sound physiology, even in those cases in which it seems useful and almost absurd to require experimental proofs. Acting in conformity with this rule, which has always directed us up to the present time in our labors, we have examined in its turn the venom of toads for the pur-

pose of ascertaining whether its characteristics were really such as had been supposed, and, contrary to our expectations, we have found it to be soluble in alcohol, and in all other respects as stable a compound as the active principle of these American arrows, for the action of boiling water destroys none of its properties.

It had been supposed, however, that no venom was fatal to the animal itself which secreted it; and as the poisonous arrows produce marked effects upon the toad, we found it necessary to try upon this animal the results produced by the inoculation of its own venom, in order to ascertain whether the opinion generally entertained on this point was scientifically true. The experiments undertaken for this purpose do not allow the slightest doubt to remain on this point. The toad is killed, like other animals, by the inoculation of its own venom; it is, however, true that the action of this poison is infinitely less intense in toads than in frogs, of all other animals those which resemble them most in organization; and it might hence be inferred that a certain degree of truth exists in the above-mentioned opinions. Let us bear in mind, however, that the resistance of the toad to all kinds of poison is infinitely superior to that of the frog; that strychnia, upas, and various other substances act in much smaller doses upon the latter than upon the former animal—a fact which agrees with the lower excitability of the nervous system in toads.

All these phenomena may therefore be reduced to a general principle, which we have strenuously endeavored to inculcate in the course of the present lectures, namely, that no essential differences exist between the homologous tissues of different animals; that properties observed in one case are found to exist throughout the entire scale of being, although, considerable variations in their intensity are met with even in the case of neighboring species. You also perceive that our knowledge of venoms is less advanced than the other branches of toxicology, and that is urgent to repeat a new series of experiments on each of those substances in particular; for we are not prepared, up to the present moment, to attribute the properties enjoyed by the venom of toads to the whole series of animal poisons; further researches are indispensable to settle the question.

Let us now, gentlemen, after this digression, resume the explanation of the effects produced by muscular poisons. The principal result of their action is sudden arrest of the heart's motion; and in this respect they might also be divided into

two classes. Some of them act upon the heart before affecting the voluntary muscles; such is the case with digitalis and upas antiar. Corroval and vao enjoy this power in a still greater degree. The reverse is the case with other poisons; they act upon the voluntary muscles at first, and do not paralyze the heart till a latter period of the destructive process; the American arrows belong to this latter class. It is therefore easy to conceive how wide is the difference between the intensity with which these poisons act in animals differently organized. A very small dose of corroval produces instant death in birds; a mammal survives a few minutes; while frogs resist the action of this substance for a considerable space of time, these animals, as you are aware, being able to survive a few hours after the total ablation of the heart.

We shall now perform a few experiments on various animals with these different poisons, and you will find that far from resembling woorara and strychnia, which destroy life without leaving the slightest vestige of their action, these muscular poisons actually produce deep physical changes in the tissue which loses its physiological properties under their influence.

(At this stage of the lecture a couple of pigeons were brought forward; an incision was made into the breast of both, laying bare the muscular fibres, and on applying test-paper, a decided alkaline reaction was met with in both cases. One of the pigeons was then killed with a poisoned arrow, the other with a solution of woorara injected into the cellular tissue. A frog was at the same time poisoned by introducing a small dose of corroval under the skin; it was then replaced in the jar from which it had been taken.)

You perceive, gentlemen, that the muscular tissue offers a decided akaline reaction in the healthy state. But in animals poisoned with any of those substances which act upon the contractile elements, the reaction of this tissue becomes acid, and the *rigor mortis* occurs immediately after death; two changes which spontaneously take place in dead animals, but only after a space of twenty-four hours has elapsed. The electrical properties of this tissue equally undergo a singular alteration, for, in the ordinary state of things, the external surface of a muscle is positively, and its internal or cut surface negatively electrified; the reverse is the case in animals poisoned with these toxic agents. And, lastly, on opening the bodies immediately after death, the heart is found contracted, motionless, rigid, and totally empty, so that its transparent walls in

the frog have lost the ruddy color imparted by the presence of blood within the cardiac cavities, and appear perfectly white and colorless.

In all such cases the muscular element alone has been acted upon; for if on poisoning an animal with one of these agents, you were to apply a ligature round one of the limbs, and thus prevent the poison from reaching it, you would find that while the other muscles of the body remained insensible to the action of galvanism, those of the limb of thus preserved, would really obey its influence, when excited through the corresponding nerves; a proof that the muscular fibres alone have in this case been interfered with, the nerves retaining as before all their vital properties.

(The bodies of the poisoned animals were now opened; in the pigeon killed with an arrow, the heart was found rigid and motionless, the muscles stiff, and incapable of responding to the galvanic current. The same phenomena were observed in the frog, the heart of which was particularly rigid and perfectly colorless. On testing the muscles, their reaction was found decidedly acid. In the pigeon killed with woorara, the heart was found still in motion; and when at length its pulsation had ceased, galvanism was applied to it, and caused the parietes to contract; the muscles of the limbs responded readily and powerfully to the same agent and their reaction was alkaline.)—(*Medical Times and Gazette*, September 29, 1860.)—*N. A. Review.*

TREATMENT OF SCROFULOUS LYMPHATIC GLANDS.

BY P. C. PRICE, ESQ., &c.

General Treatment.—In all diseases in which complication exists, prescribed forms of treatment must be more or less modified; and this observation is particularly relevant as regards the therapeutical management of this special glandular affection. It has been stated that, in all probability, in the majority of cases in which this derangement occurs, it obtains as a result of certain causes which have an extra lymphatic origin; and, therefore, before any hopeful treatment can be adopted, it is highly advisable that they should, if possible, be

recognized. What these causes may be, it is often difficult to determine; but frequently a decided departure from health will point to some impairment of the digestive, secretive, or absorptive functions. It must be allowed, I think, that this kind of glandular affection is generally met with in each of the divisions which so commonly admit the development of strumous disease, viz.: the sanguine, phlegmatic, lymphatic; so that if in certain instances it appears to be but slightly, if at all associated with well developed scrofula, still it must be ordinarily considered as in some way or other connected with this peculiar diathesis. Believing that the simpler forms of the affection, when appearing in the external glands, although not appreciable in those of the mesentry and other internal structures, are dependent on systematic causes, I usually commence the treatment by regulating the proper action of the various viscera. This is best accomplished when the *primæ viæ* are at fault, by unloading the bowels, and maintaining their proper action. Constipation is a very frequent accompaniment of glandular swellings, and it is astonishing to see how an alterative course of medicines is attended with almost immediate good effect, provided the disease has not been too long established. Mr. Abernethy was in the habit of treating these cases with calomel; but with what special views he used this powerful medicine does not clearly appear even from his own description. Although as a rule I do not resort to the administration of calomel in large and continuous doses, still there is no doubt that mild mercurial preparations are often of value, as the liver is generally torpid in its functions. For reasons already stated, I prefer small and repeated exhibitions of hydrargyrum cum creta in combination with compound rhubarb powder, or some alterative. To improve the tone of the digestive and assimilative powers is all important; for, as long as these remain neglected, the proper action of the various organs cannot take place. Mineral acids in combination with bark, quinine and iron are the most available adjuncts for restoring a healthy tone. For the more immediate treatment —reduction—of the disease, iodine, bromine and cod-liver oil have, during the past quarter of a century, taken the first rank; and, if cure is to be obtained, perhaps no specific remedies are more valuable. Iodine and bromine may be exhibited in one or more of the forms already described, or in any of those which will meet with further consideration. When speaking of the action of iodine on indurated glands from vascular derangement, it was stated that the administration of

the drug was not always so rapid or certain in its effects as could be wished for; and that not unfrequently disappointment followed even its most pertinacious use. This remark is even more applicable to the treatment by iodine of this form of glandular mischief than the last described; for considerable experience has proved to me that even its very extended exhibition is oftentimes attended with failure. Various reasons may be assigned for this want of success: but, whatever may be the correct one, it is more than probable that in the majority of cases of confirmed mischief a hidden influence is at fault in keeping up the irritation, over which iodine has little or no control. In one instance, in particular, in which the constitution was saturated with iodine, little or no amendment or reduction in the gland swellings resulted. It may be asked—this important agent being oftentimes incapable of inducing resolution, or even arresting the further progress of the disease—what means should be adopted to procure amendment and cure? I fear even the most sanguine and experienced practitioner will readily admit that many cases, in which this form of glandular affection exists, are not really amenable to the treatment of any fixed medicinal means, and that the good to be expected is chiefly derivable from change of climate, and from the removal of those unwholesome influences to which the subject of the affection may be exposed. Rapid amendment in such cases, occurring especially among the poor, by this plan of rational treatment is frequently most marked. Much has been said and written on the direct advantage of sea-air and sea-bathing; and, while many excellent writers have been far too laudatory in their recommendation of these means, others have not sufficiently noticed the benefits which their employment often affords. Ample observation among both private and hospital patients at Margate, has assured me that immediate advantage is very frequently to be gained by a sea-side residence, and a free recourse to sea-bathing, provided it be not contra-indicated by reason of certain complications of constitution and disease. If, with these means, treatment by iodine, cod-liver oil and tonics is added, I believe marked amendment and cure will oftentimes be obtained when but little hope was entertained from either ere change of climate was obtained. But, although a residence by the sea is often advantageous in the management of cases dependent on this kind of glandular disturbance, still it often happens that a less bracing and inland locality is more suitable. Individual cases must be managed according to circumstances; but, as a

rule, I believe a change of climate and residence is often expedient, and even necessary, when medicinal means solely employed have failed. It has already been hinted that this form of glandular affection, when limited to the external lymphatic ganglia, after arriving at a certain stage and becoming permanent, is frequently unaccompanied with any strongly marked evidences of disturbance of the general health. In fact, it is not rare to see individual cases in which not the slightest effect is produced on the system. I have lately been interested in a case of this description, in which the glandular enlargement, especially of the cervical ganglia, has existed for years, and no perceptible effect has been produced on the constitution and vigor of the patient. The case has been under notice for a considerable period, and a large amount of iodine has been taken without having exercised any or little effect on the glandular system. This form of hypertrophy is more permanent when once established than other chronic enlargements; and frequently no perceptible changes are induced by the variations of seasons and temperatures. But, although this condition of hypertrophy is oftentimes comparatively harmless, still it is apt to progress to such an extent as to cause not only inconvenience but danger from mechanical causes. Moreover, fear is to be entertained that any subsequent complication may give rise to still more important lesions; for it has been noticed that more marked scrofulous and true tuberculous mischief is apt to arise, especially if the strumous diathesis be strongly portrayed; and it is on these grounds, if not on others, that such medicinal and general treatment should be adopted as is most likely not only to cure or amend the affection, but to prevent the occurrence of more distressing and dangerous complications.

Local Treatment.—Although local treatment by means of certain applications has been highly extolled by many observant practitioners, still, I believe that a due consideration of the pathological changes that have induced an alteration in the condition of the affected glandular apparatus will at once show that much advantage is not, as a rule, to be hoped for from mere mechanical and therapeutical applications. When such means are, however, employed, either solely or with internally administered medicines, it is customary to adopt the use of those agents which have already been and will presently be more fully considered, viz.: blistering; paintings with iodine, bromine, and their salts in the forms of tinctures, etc; frictions with various powders, ointments and oils; and the constant

application of various solutions containing mineral salts, etc. But much harm instead of good may arise by a too pertinacious use of one or more of these various means. I have not unfrequently seen cuticular and cellular mischief occasioned by a too persistent application of iodine; while little or no appreciable advantage has been derived, so far as diminution in the glandular derangement was concerned. When enlargement is dependent on plastic material, doubtless iodine, etc., topically applied, is of some value; but judging from my own experience, I cannot recommend, with any great hope of success, the treatment of this special form of glandular hypertrophy by local discutients, absorptives, etc. Sometimes diminution in size of implicated glands of this nature does ensue from repeated and long continued topical applications of iodine, mercury, etc.; but then, I believe, the general system has become more or less affected through absorption, as I have seen verified on more than one occasion.

Direct surgical treatment is, however, sometimes needed, as it may become expedient to remove one or more hypertrophied glands, which by reason of accummulation in size, occasion not only deformity and inconvenience, but positive danger. Caustics and the knife are the two chief means in the hands of the surgeon to effect reduction or absolute removal. The application of caustics for such purpose has met with some consideration in previous pages, and I have only to reiterate what was then stated. Although a resort to caustics is in general, I consider, not only erroneous, but decidedly bad practice, still there are occasions when no other agent will prove of like advantage. The way in which caustics act when employed as a means of destruction, is by causing inflammation and suppuration of the tissues with which they are in contact. Such changes are more or less rapidly induced, in proportion to the agent employed; while the disturbance generated is in relation to the extent of local destruction and constitutional temperament. I have frequeutly known very serious results follow this plan of treatment, and I have rarely put it in practice for the removal of this form of glandular mischief.

When it is really expedient and necessary to take away one or more hypertrophied glands, the knife will be found the most certain, least painful, and efficient means at the disposal of the practical surgeon. Care must, however, be taken to select only such cases as are well marked for operative interference. When the gland-tumors are situated in close relation to large arterial and venous trunks and nerves, extra judg-

ment is required in advising and performing an operation; for experience has fully shown that danger is apt to arise therefrom. An example of injudicious interference has been current since the days of Celsus; and there are few surgeons who cannot recall to recollection similar instances of bad practice. When circumstances are favorable, and removal well and carefully executed, success will in general attend direct and judicious surgical interference; for a slight scar will by the majority of patients, especially by those who take pride in the advantages of personal appearance, be deemed of less moment than an unsightly and irreducible gland swelling.—*Brit. Med. Jour.*

ON THE MORBID APPEARANCES IN DEATH BY COLD.

BY FRANCIS OGSTON, M.D., OF ABERDEEN.

(1) A woman, forty-four years of age, a vagrant, was found dead by the roadside, on the morning of April 24th, 1860. She had been drinking whisky when last seen, the evening before; the night had been stormy, and there was snow on the neighboring high grounds at the time.

The body "was lying on its right side, the clothes wet, the arms by the sides, the knees approximated, the left knee fully, the right knee partly bent, the eyelids closed, the pupils natural, the mouth half open, the expression of the countenance placid, and the face, the outside of the left arm, and the fronts of both knees of a bright red hue, contrasting with the pallor of the rest of the surface, the back included, which everywhere showed well-marked cutis anserina.

"The appearances at the inspection which followed were as under: Scalp bloody; arachnoid membrane thickened and opaque; cerebral sinuses empty; blood in moderate quantity in the veins on the surface of the brain; cerebral mass paler, and containing less blood than usual; the cavities on each side of the heart, and the arteries and veins opening into them, distended to an unusal extent with blood, mostly in a fluid state, but mixed with a few red and colorless (fibrinous) clots. The blood in the heart and elsewhere nearly of the hue of arterial blood, and, unless when in bulk, after a few minutes' exposure to the air assuming wholly that appearance.

Frothy mucus in the larynx and trachea; mucous coat of the trachea minutely injected; clusters of small petechiæ on the interior of the stomach, whose contents (milk curd) exhaled a spirituous odor; liver a good deal congested; the remaining viscera of the abdomen remarkably pale and bloodless; urinary bladder enormously distended."

(2) A man aged thirty, a street porter, traveling on foot on a very cold night, drank some whisky and ale at a tavern; he then got on a cart to sleep while riding, and when the party stopped, having gone eight miles, he was found to be dead.

Dr. Ogston saw the body "in its original position on its back in the cart, with blood in moderate quantities in the nostrils, and on the face, hands, and clothes;" (he had been struck by one of his companions on the way;) "the joints rigid, the arms by the sides, and the knees half bent. Dusky-red patches were observed on the forehead, right side of the face, the chin, the outside of the right and inside of the left thighs, and on the insteps of both feet; with these exceptions, the front of the body, including the lips, markedly pale; dependent parts of the trunk and limbs livid.

"At the subsequent inspection, the following appearances presented themselves: Scalp pale; arachnoid membrane thickened and opaque; clear serum, rather abundantly under the arachnoid, in the cerebral ventricles, and at the base of the skull; excepting some fullness of the superior longitudinal sinus, the cerebral veins and sinuses contained but little blood; the mass of the encephalon unusually pale and bloodless; reddish frothy mucus in the treachea, and in considerable quantity in the bronchi; distinct œdema of the left lung; fluid blood in large quantities in the cavities on both sides of the heart, and in the arteries and veins connected with them; and the blood here as elsewhere, as in the previous case, presenting, except when in mass, a rich crimson arterial hue; the contents of the abdomen unusually pale and bloodless; a quantity of brownish fluid, smelling of beer, in the stomach; bladder enormously distended with clear urine."

Dr. Ogston remarks on the analogies observable between these cases and four others, published by him in the *British and Foreign Medico-Chirurgical Review* for October, 1855; but he very justly says that further observations are required to enable us to assume that like appearances are necessarily to be found in every case of death by cold, even in its least complicated form. The subject is not without interest in a pathological point of view, although it is chiefly important in connection with legal medicine.—*North Am. Review.*

CHICAGO ACADEMY OF MEDICAL SCIENCES.

The Third Annual Meeting of the Academy was held at its rooms, January 4th, 1861.

The following named fellows were elected officers for the ensuing year:

President—James Bloodgood, M. D.

Vice President—Thomas Bevan, M. D.

Recording Secretary—E. L. Holmes, M. D.

Corresponding Secretary—J. McAllister, M. D.

Treasurer—W. S. Denniston, M. D.

Trustee—A. Fisher, M. D.

Committee on Medical Ethics—R. C. Hamill, M. D.; N. S. Davis, M. D.; E. Powell, M. D.

Committee on Medical Education—W. H. Byford, M. D.; J. W. Freer, M. D.; Thomas Bevan, M. D.

Committee on Admissions—S. Wickersham, M. D.; H. W. Jones, M. D.; S. C. Blake, M. D.

ABSTRACT OF THE PROCEEDINGS OF THE AURORA CITY MEDICAL ASSOCIATION.

Aurora, Ill., *January 7th*, 1861.

The Aurora City Medical Association met at Dr. Young's office.

Present—The Vice-President, Dr. L. A. Young, in the chair; Drs. Allaire, Angell, Hard and Young.

Minutes of last meeting read and approved.

It being the annual meeting, on motion of Dr. Young, the

Association proceeded to the election of officers for the ensuing year, after which the following gentlemen were declared duly elected:

President—L. H. Angell, M. D.

Vice-President—Abner Hard, M. D.

Treasurer—P. A. Allaire, M. D.

Secretary—D. W. Young, M. D.

On motion of Dr. Allaire, Dr. Young was appointed a committee of one to prepare and forward to the Hon. Edward R. Allen, our Representative in the Legislature, a copy of the petition presented to and recommended by the Illinois State Medical Society, at its tenth annual meeting, petitioning the Legislature to pass a registration law for the State of Illinois.

On motion of Dr. Young, Dr. Allaire was appointed a special committee to wait upon and inform the Common Council that their ordinance requiring the registration of deaths and all interments occurring within the city limits, was being violated to a certain extent, especially at the Catholic Cemetery, and requesting them to see that the ordinance should be enforced in every case in the future.

On motion of Dr. Young, Dr. Howell, the retiring President, being unable to attend this meeting, was granted further time to deliver his valedictory address.

The President appointed Dr. Allaire to read an address at the next meeting. The President announced Scarlet Fever as the subject for discussion at the next meeting.

On motion of Dr. Hard, the Secretary was instructed to forward an abstract of the proceedings of this meeting to the *Chicago Medical Journal* for publication.

On motion of Dr. Young, the Association adjourned to meet at Dr. Allaire's office, on Monday evening, January 21st, 1861.

D. W. YOUNG, M. D., Secretary.

PROCEEDINGS OF THE SEMI-ANNUAL MEETING OF THE ROCK RIVER UNION MEDICAL SOCIETY FOR 1861.

The Society convened at Dixon, Jan. 16th. The President, Dr. A. G. Porter, being absent, the meeting was organized, on motion of Dr. G. W. Phillips, by choosing Dr. Moses M. Roger, of Sterling, as President *pro. tem.*

Proceedings of last meeting read and approved.

Drs. J. F. Marsh, and P. J. Wardner, of Grand de Tour, being proposed as members, were, on motion, admitted members of the Society.

Report of Committee on Surgery being called for, Dr. G. W. Phillips, as a member of the committee, read an essay, entitled: "The line of demarcation, and of separation—the course of its formation—and its practical significance."

On motion of Dr. N. W. Abbott, the Report was accepted and ordered to be placed on file, with the papers of the Society.

Drs. Abbott, Wardner, and W. Wynn, made some observations upon the practical points contained in the essay.

A discussion here sprung up as to the possibility of a limb, as a toe or finger, after having been completely severed from its connection, again being united.

Dr. Wardner mentioned a case, which came under his observation, of the severing of the foot, through the middle, by incised wound, so that a portion, or isthmus of skin, not an half an inch wide, remained; the wound, after being properly dressed, united again firmly, so as to give an useful limb.

Dr. Roger mentioned a case, for which he vouched, but did not see, of the complete severing of a finger, which, being immediately placed back to its place, and firmly retained, united strongly, and gave an useful finger.

Dr. Abbott, from committee on "Best means of preparing

Medicines for convenient administration to young children;" made remarks upon the subject. He had found that common salt, taken in the mouth, held, and then swallowed, both before and after taking a dose of quinine, effectually destroyed the taste of the medicine.

On motion, adjourned until after tea.

Evening Session.—On motion, the question of printing the fee-bill was laid over until the annual meeting in June.

On motion of Dr. Phillips, the President appointed three delegates, consisting of Drs. N. W. Abbott and G. W. Phillips, of Dixon, and Dr. A. M. Freas, of Milledgeville, Carroll Co., to attend the American Medical Association, to be held in Chicago next June.

On motion, Drs. H. C. Donaldson, of Como, Moses M. Roger, of Sterling, and Dewitt C. Warney, of Dixon, were chosen delegates to the State Medical Society.

On motion, the committees that have not reported, be continued, and report at the annual meeting.

On motion, Dr. A. W. Benton was admitted a member of the Society.

On motion of Dr. Abbott, the Secretary was instructed to furnish a copy of proceedings for publication in the Chicago *Med. Journal*, and in the *Republican* and *Telegraph*, of Dixon.

On motion of Dr. Phillips, Sterling was selected as the place for holding the annual meeting.

On motion, adjourned.

G. W. PHILLIPS, M. D., Sec'y.

Unity of the Human Race.—The veteran Dr. Samuel A. Cartwright, contributes to De Bow's *Review* a characteristic article, wherein he argues from the Hebrew Bible that the unity of the human race is theologically disproved. We opine, however, that opinions will still continue to differ on the point.

EDITORIAL.

Delay of the January Number Explained.—We regret that the present No. has been delayed by unforeseen circumstances. The gentleman with whom we had made a verbal contract to print the *Journal* the ensuing year, disappointed us in the very nick of time, and the necessity of making entirely new arrangements caused a more provoking, because wholly unanticipated, delay. The February No. will be issued early in the month, and thereafter our Printers contract to mail each No. promptly at a period not later than the first day of the month designated on the *Journal.*

The Future.—The Editors beg leave to say that for the ensuing year they have perfected arrangements which, it is believed, will add largely to the interest, importance, and moreover the artistic appearance, of the Journal committed to their charge. Original contributions, of both scientific and practical character, have been guaranteed from gentlemen of eminence and real worth in the profession; and the several departments of Selected Reading, Abstracts, Reviews, Bibliographical Notices, Items of Medical News, &c., &c., it is intended shall be a true reflex of medical thought, science, art and advancement.

In this, the *Eighteenth Volume* of the Journal, enjoying as it does pre-eminently, the largest and widest circulation of any medical periodical in the Northwest, the Editors hold it as incumbent upon them to use their best efforts to render it even more worthy than ever of professional support and influence. Disclaiming the character of an *organ*, in the conventional sense of that term, it will still attempt to be an *exponent* of

sound medical opinion, whether in reference to professional literature or education, science or art. It aims to be a welcome guest at the tables of the faculty of the Northwest, as well as to indicate to more remote portions of country the professional *status* of its immediate section. Little space will be granted to subjects of medical foibles or follies, within or without the professional ranks, whilst the Journal will still claim the right to independent discussion of real problems of interest, and an earnest outspoken defence of what it believes to be the right and the true, amid all the variety of topics which can profitably claim professional attention.

To Contributors.—With sincere thanks to the many friends of the Journal who have heretofore added so much to its interest and value by their generous contributions to its pages, we hopefully solicit a continuance of their favors in the future. It is important, in order to secure early insertion, that articles should be sent in before the *fifteenth of the month.*

Brevity, perspicuity and precision, are the necessary elements of a first-rate medical communication. Rhetoric is better adapted to ornament secular than medical magazines, even when in the latter so exciting a subject as *inversio uteri* is to be ventilated.

Rush Med. College.—About 160 gentlemen are in constant attendance upon the present annual session of this institution. Of this number 145 are matriculated and have taken out all the tickets.

Summer Session of Rush Medical College.—The special attention of medical students is invited to the announcement of this course, to be found on the cover. The high character and excellent professional attainments of the gentlemen having this institution in charge, would be sufficient to secure its success, even if previous sessions had not already demonstrated the fact. We lend the enterprise hearty endorsement and support.

Surgical Instruments.—The enterprising and popular house of J. H. Reed & Co., of this city, send out with this No. a full catalogue of their stock of surgical instruments, accompanied with the further convenience of a list of prices. It is worth preserving for future reference.

Per-Sulphate of Iron in Post-Partum Hemorrhage.—Dr. Geo. Mendenhall, of Cincinnati, reports a case of successful treatment of dangerous hemorrhage by intra-uterine injection of three ounces of the saturated solution of per-sulphate of iron in water. All the usual remedies had failed, and the case seemed desperate. The effect was prompt and complete. "*After the injection there was not at any time a particle of fresh blood, or a tinge of it, in the lochia.*"

Adulteration of Alcoholic Spirits.—Dr. A. A. Hayes, State Assayer of Massachusetts, as the result of considerable experimentation, doubts the intentional adulteration of alcoholic spirits by strychnine or other foreign poisons. He considers the spirits produced in this country to serve as beverages, remarkable for their purity and freedom from any substances which careful rectification can remove. The low-priced common spirits are occasionally noxious from the presence of the so-called *fusel oils.* But salts of copper, of lead or tin, are not infrequently present in newly distilled spirits, derived from the condensers in which the vapors are reduced to a fluid form. The quantity, however, is necessarily small, and mainly important in toxicological analyses when death is suspected to have resulted from poisons derived from other sources.

The St. Louis Medical and Surgical Journal for November, contains a severe attack upon Dr. Jos. N. McDowell's Report on Surgery. We regret to see the unpleasant feeling manifested, but believe the parties will respectively survive.

Dr. Linton winds up his series of articles on Homœopathy, having in the most trenchant, unanswerable, and yet genial,

style, annihilated his *quasi* antagonist. By the by,—this is one of the most readable of our exchanges.

Gonorrhœa.—Some one lately revives the medicated bougie in the treatment of obstinate cases of gonorhœa—the wax bougie encrusted with pulv. alum, being recommended. It is to be retained in the urethra several hours at a time. This is well enough, perhaps; but the real secret of the successful treatment of this disease is merely this: to secure the application of the medicament to the diseased surface, a thing rarely done, and hence the frequent failures. The poisonous matter finds lodgment in the crypts, the lacunæ, of the urethral parietes, and in old cases not infrequently these become largely distended. Obliterate these, by patient distension of the pasage, so that the antidotal medicine may be applied directly to the diseased part, and the difficulty is ended. The methods are obvious, and success about infallible.

Seventeenth Semi-Annual Report of the Board of Water Commissioners, 1860.—The city of Chicago boasts the purest water, plentifully distributed, of any city of its size. The wonderfully augmented salubrity of the city for several years past, is unquestionably in great part due to the purity of the water with which it is supplied, and the improved system of sewerage which has been inaugurated and carried forward with commendable dispatch. Let the good work go on.

At a recent meeting of the Medico-Chirurgical Society, of New York city, Dr. A. B. Mott stated that he had employed Prof. Brainard's method of subcutaneous division of the bones and soft parts in ununited fracture several times with success. —*Med. and Surg. Jour.*, *Nov.* 24, 1860

Nicotian.—It is estimated that the world smokes, snuffs and chews 2,000,000 tons of tobacco annually.

Palliative Treatment of Cancers.—Mr. Thos. Hunt, (Southern M. and S. Journal), thinks much can be done in the palliative, and perhaps curative, treatment of "those cases of true scirrhusin the breast in which there is a hard and movable tumor, not yet advanced to the stage of ulceration." He recommends the belladonna plaster to allay pain; cotton wadding to protect from changes of temperature; suspension of the whole breast especially if pendulous; generous diet, tonics, particularly chaly beates and arsenic; moderate but frequent exercise in the open air, &c., &c. The course recommended seems eminently judicious.

Climate of California in Phthisis.—Dr. James Blake, of Sacramento, eulogizes the climate of California for Consumptives, in a series of well written articles in the Pacific M. and S. Journal. At the present time the attention of practitioners seems to be directed about equally to California and Lake Superior as resorts for invalids of this character. So much depends upon the peculiarities of each particular case, that it would seem difficult or impossible to lay down any positive rule for general adoption.

Proceedings of the American Institute of Homeopathy, Philadelphia, 1860, *pp.* 206.—From careful reading of this pamphlet, the idea, which had previously gained possession of our minds, that the disciples of Hahnemann were gradually dropping the more ludicrous and narrow features of their creed, becomes further confirmed. In general practice, it is notorious, that the gentlemen who label themselves Homeopathists, do not scruple to avail themselves of the appreciable doses, and most of the later books and pamphlets emanating from that school, are deeply tinged with the same heresy against their Grandfather's dogmas. The *let-alone* treatment will result in speedy convalescence to the victims of the infinitesimal epidemic.

Quien Sabe?—Grease an Antidote for Arsenic.—Blondlot shows by experiment that grease reduces the solubility of arsenious acid to one-fifteenth or twentieth its previous degree. "Morgagnie tells us, in his writings, that in his time, the Italian boatmen used to astonish the bystanders by swallowing, without hurt, large pinches of arsenious acid, having taken the precaution beforehand, of drinking a quantity of milk, or eating some greasy matter. As soon as the public retired, they got rid of the poison by vomiting." This would seem to indicate the use of cream, lard, &c., as antidotal to this poison. The remedy proposed, at all events, has the advantage of being innocuous.

Ligature of the Arteria Innominata.—Dr. E. S. Cooper, of San Francisco, reports a recent case of ligation of the *arteria innominata.* Thirty days from the operation the case was progressing favorably, although from the final results of recorded cases of the kind, he was still watching for the sequel with considerable anxiety. One thing is quite evident, from the remarkably favorable results chronicled by our brethren of the Pacific coast, and that is, that the climate of their section is peculiarly salutiferous to surgical patients.

Monsel's Salt.—Our inquiring friend is informed that by this term is meant the per-sulphate of iron, a remedy recently grown very popular as a styptic, and also as a local application to venereal and other ulcers.

We find the following formula from the Am. Jour. Pharmacy a good one: By George S. Dickey, Jr., of San Francisco, Cal.—I give you my formula, the result of numerous experiments when I first undertook its manufacture:

℞.	Aquæ destillatæ,	℥ lxxx.
	Acid Sulph. Com.	f. ℥ ix, Xf ʒ iii.
	Ferri Sulph. Puræ,	℥ c. troy.
	Acid, Nitric, "	f. ʒ viii. or q. s.

Mix the water and sulph. acid, and dissolve in the mixture

one-half of the sulphate of iron with the aid of heat. Bring up the mixture to a brisk boil, and add the nitric acid little at a time until effervescence ceases, and while still boiling add the remainder of the sulphate of iron little by little, and boil until effervescence ceases. Filter the solution, evaporate to a syrupy consistence and spread on plates of glass to dry. It requires considerable heat to dry perfectly, but is quickly dehydrated by a too long continued heat. When dry, it is necessary to detach it from the plates with a chisel.

The article has attained great celebrity here, principally as a hæmostatic and as a local application to venereal ulcers.

I have manufactured and sold more than two thousand (2,000) ounces during the last year and a half, and its sale still continues, in fact, increases.

I have never yet met an instance of its failure to stop bleeding when properly applied, and it is only necessary that the dry salt should be sprinkled on the wound.

I have been much surprised that it has been so long getting into use in your section, as I sent two or three samples to different parties near a year since.

Very truly yours, GEO. S. DICKEY, JR.*

THE AMERICAN MEDICAL ASSOCIATION.

The *Louisville Medical News*, in its penultimate number, is exercised with reference to Chicago and the ensuing meeting of the American Medical Association. We appreciate its depth and tenderness of emotion. We know that when that august body was about to convene at Louisville there were local wars and rumors of wars, log-rolling and feastings, and cliqueing in abundance. We do not wonder that the Louisville editor thinks the same is the case in Chicago. Some people are very apt to reason from particulars to generals, on a very small allowance of particulars. We beg leave, however, to assure our chivalrous *confrere* that, as yet, we have not heard the subject alluded to in this city, publicly or pri-

*The specimens of the salt received from Mr. Dickey were the finest we have seen; perfectly dry, in very thin scales, translucent and of a light reddish brown color, very soluble and astringent.—ED. AM. J. PH.

vately. The only medical gentleman who seemed to manifest any interest in the matter, has in a contemporaneous print disavowed any ambition in the premises, and from sundry circumstances we are inclined to credit his disavowal.

The profession in Chicago we believe will sustain the reputation of the city for hospitality and good cheer, next June as heretofore.

The political squabbles and eccentric movements which a few demagogues are howling about, just at this period, we do not believe will materially influence the annual assemblage of American physicians. Medicine is cosmopolitan, and is not likely to prostitute itself before sectional ululation, whether Northern or Southern. Time was when a venerable fragment of Philadelphia excreta, could rail at western medical men, and assert that wise men came only from the east, but just now the professional sense has opened itself to the idea that true medical science knows no South, North, East or West, but limits itself only to the round world and its circumambient atmosphere. This is true—Chicago says to the American profession —we have no friends to reward or enemies to punish. If you have any honor to confer, *Detur digniori*, irrespective of geography or chicane.

BIBLIOGRAPHICAL NOTICES.

A Manual of Auscultation and Percussion: Translated from the French of MM. Barth & Roger, by J. A. Pottenger, M. D., St. Louis. 12 mo. pp. 161. From the Translator.

This is a translation of the *Resume* of the larger work of MM. Barth & Roger, as prepared by themselves for the convenience of students. The merits of the work are too well known to need recapitulation. The Translator has performed his task with scrupulous fidelity, and we take pleasure in commending the "Manual" to all who wish for a concise, perspicuous and practical exposition of the subject.

A Handbook of Hospital Practice, or An Introduction to the Practical Study of Medicine at the Bedside. By Robert D. Lyons, Physician to Jervis St. Hospital, Dublin, &c., &c. Reprint by S. S. & W. Wood, 389 Broadway, N. Y. From the Publishers, 1861.

It does not follow that because a work is brief, that therefore it is superficial. This is a fallacy, which we are happy to say, is gradually disappearing from the minds of bookmakers. The work before us is a capital illustration of the *multum in parvo.* It is a practical companion for Dr. Hartshorne's Syllabus, noticed some little time since.

Adopting Dr. William Farre's classification of diseases, now very generally employed for Registration statistics, the Author proceeds to instruct the student how to examine patients, what to observe, the diagnostic signs, the particular methods applicable to local disorders, post mortem examinations, &c., &c. The task has been accomplished in a manner worthy of high praise. The work contains also an Appendix, including directions for writing prescriptions, a glossary and specimen blanks for recording cases. The student who will thoroughly master the contents of this little book, will be richly rewarded in after years. Nor need even experienced practitioners fear any loss of time by careful reading of its pages. They will find their ideas acquiring definiteness by its perusal, and, practically, cannot fail to derive many valuable suggestions.

Contributions to the Anatomy of the Spinal Cord.—By Dr. J. P. Trask, San Francisco, 1860. From the Author.

Extracts from this interesting *brochure* will appear as space permits in subsequent numbers. The author has our sincere thanks.

The True Physician.—Dr. John Watson's Anniversary Discourse before the New York Academy of Medicine, Nov. 7, 1860. Published by order of the Academy.

A racy readable production, profusely illustrated with

anecdote, and characterized throughout by a high professional tone, worthy of the author and the occasion. We make room for brief extracts :

As in literature and the fine arts, so also in medicine, every enlightened nation has its own peculiarities. Local organizations differ, conventional habits and opinions vary, with varying forms of government. The style of education, and the social rank of medical men, are not the same in all countries. Their modes of promotion to posts of honor, the number and nature of these, are not everywhere alike. The tendency to practical inquiry or abstract speculation, the character and freedom of their discussions, even their artistic skill in writing for the press, partake more or less of the national spirit. Every point in these and other national characteristics has its influence upon the judgment. Peculiarities thus engendered are not always recognized by those moving only in the atmosphere of their own nationality and who never breathe the air of other places ; but to the stranger, or returning traveler, they are perceptible enough.

"Be sure you 're right at first, then go ahead," is an apothegm bequeathed to us by a man worthy of remembrance, as much for his practical common sense as for his deeds of daring among our western pioneers. The latter part of this injunction is now an accepted Americanism, as common to the habits as to the language of our people ; but the clause with which it is coupled is too apt to be forgotten. It is hardly of domestic origin. It points to habitual forethought ; to times anterior to the rapid march of modern innovation, and not to those whose custom is to act first, and think afterwards.

The well-known words of Jefferson, "free and equal," have been the theme of many commentators, for approval on the one hand or ridicule on the other. There may have been a time when their influence was trifling ; but such is not the case at present. They have long since ceased to apply here simply to political freedom and equality. They are now the enunciation of a sentiment common to our people of every rank and station. This, as it affects our own profession, is most conspicuous in our neophytes, and humbler aspirants after notoriety ; but it is also occasionally seen in other quarters.

Cullen, we are told, was on one occasion reprimanded for publishing, and was obliged to retract, certain statements in his work on the Materia Medica which had not the sanction

of the Faculty at Edinburgh. The time has never come—it probably never will come—for any medical writer here to desist, at the dictation of any school or association, from giving to the world opinions the most crude, or statements the most unworthy of reliance. This, perhaps, is right. The conflict of errors is their best cure. But the privilege of doing wrong does not imply the expediency of wrong-doing.

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When the University of Upsal, at the instigation of Professor Rosen, silenced Linnæus and prohibited him from lecturing on botany, simply for the reason that he was yet an undergraduate, the indignant naturalist drew his sword upon his enemy. For, though young, he was already conscious of his own abilities, and felt that he had been injured by a man inferior to himself. In America, the man of talent has nothing to apprehend from such indignities. But every aspirant to the professorial chair is not a Linnæus, even in America; and it is no strange thing for our professors to become familiar with the department of education assigned to them only after receiving official sanction to take charge of it.

In connection with this disposition to rest satisfied with superficial attainments, and in some measure the result of it, is a tendency on the part of many of our people to frequent change of occupation; and of others to undertake more than they can accomplish. Here every country village can supply its man.

> "Who, in the course of one revolving moon,
> Is statesman, chemist, fiddler, and buffoon."

I might pursue this topic. But with these serious drawbacks it is proper to remark that we are not without our advantages; that in connection with the profession at home we can point to honored names and deserving institutions; that if our schools are not all equal to the best-appointed schools in Europe, the fault is not so much in their style of education as in the low requirements for their degrees; and that such of our youth as are desirous of thorough professional training can find at home the amplest opportunities.

In no other nation are books and periodicals, medical as well as others, so cheap and accessible as among ourselves. In no other is the habit of reading so general. In no other are the rewards of honorable enterprise so open to men of moderate means; and in no other is the energy of the individual so frequently or so variously displayed, or certainly

rewarded. Hence it is, that if the profession, as a body, here, have not yet secured the front rank in aggressive science, many among them have thus distinguished themselves, and others are in rapid progress towards these. Hence, too, it is, that though our medical luminaries may not be so numerous as in the Old World, the great mass of men here engaged in the active duties of the profession are better read, and better posted on every question of importance to ourselves than the body of professional men of any other nation. And this remark applies to the practitioner in the rural districts and retired hamlets of the United States as well as to those of our larger cities.

Again, without reference to our medical literature, of which, on the whole, we have no reason to be ashamed; or to the numerous and valuable accessions which have been made to practical medicine and surgery, we have our voluntary associations for mutual improvement, and for the collection and publication of important facts and discoveries; our county and State organizations for supervising the general interests of the profession; and, above all, our National Medical Association, which, in its annual migrations, is uniting us all into one body, awakening public spirit, and inciting to concerted and energetic action the members of the profession in every section of our country. Let us hope for its continued influence and growing usefulness.

Again, the meritorious are not the first to complain of ill success. Speaking of himself, the moralist Johnson tells us that he never knew a man of merit neglected, and that all the accusations against the world for the failure of the deserving are unjust. This may not be universally applicable. But, as observed by one of his recent reviewers, it is certain that those who whine the most deserve the least. The man that cries out, "I am neglected," usually merits the neglect he meets. "I hate a complainer," was another aphorism of this distinguished moralist. Men of Johnson's stamp are, indeed, "superior to fortune, and, as he has said of Shakspeare in his low estate, shake off its incumbrances like dew-drops from the lion's mane."*

Daniel Webster, when asked by a young friend if the legal profession were not already overcrowded, is said to have replied to him, "There is plenty of room up stairs." The intimation is applicable also to our own calling. Of the crowds

* London Quarterly Review, January, 1859.

that are yearly ushered into its portals, only the smallest number ultimately reach its highest honors; but for such as are qualified for these there is yet room.

Finally, the meritorious shun that notoriety which comes from eccentricity of manner, or peculiarity of equipage or costume,—holding obliquity of conduct to be associated with obliquity of judgment. The man of affected, no less than of unaffected eccentricities, is rarely a safe adviser, however brilliant he may be on particular occasions. And the man of sinister motives who assumes these, and whose heart is taken up with his own aggrandisement, is unworthy of acknowledgement as a physician; who, like Hamey, should be "a scholar, without pedantry; a philosopher, without taint of infidelity; learned, without vanity; grave, without moroseness; solemn, without preciseness; pleasant, without levity; regular, without formality; nice, without effeminacy; generous, without prodigality; and religious, without hypocrisy." In a word, his ruling principles, his hopes and aspirations, should be elevated, and of such a nature as to call forth his talents to their full effect. Thus moving, his course is safest as well as best. For at every step he is reaping new installments of his reward, and gathering, as he advances in life, the honors for which he was led to look, and which stimulated him to exertion in his earlier years.

A Practical Treatise on the Ætiology, Pathology, and Treatment of Congenital Malformations of the Rectum and Anus. By William Bodenhamer, M. D. Illustrated by sixteen plates. New York. Samuel S., and William Wood, p. 360.

The author of this work seems to us to have filled a void in surgical literature, since no treatise on the same subject exists in English or any other language. He appears to have exhausted the subject as far as can be judged, without referring to the original sources from which the materials are drawn, and as regards the history, nature, and treatment of these malformations, to have left nothing to be desired.

While so many ponderous and ill-adjusted treatises superficial upon everything and complete in nothing, are being issued, it is a pleasure to welcome the book to which the

practitioner may, in case of need, refer with the certainty of being able to find the information sought for. No Surgeon should be without it.

Diseases Peculiar to Women, including Displacements of the Uterus. By Hugh L. Hodge, M. D., Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania. *Nullisues addictus jurare in verba magistri.* With original illustrations, pp. 442, Philadelphia: Blanchard & Lea, 1860.

We have only time to announce the publication of this very valuable and interesting work. The reputation of the venerable author, and the importance of the subject will at once commend it to the profession. A professional friend, of distinction in this department, has promised a review for our pages next month. The volume can be found at S. C. Griggs, Lake street.

Reports on the Illinois Penitentiary. By the Commissioners for the years 1859–60, pp. 92.

This pamphlet contains much of interest to medical men, and is worthy of attentive perusal. So far as appears from the reports, the State penal institutions are in good order and condition. The mortuary list is remarkably small, which evidences a suitable attention to the hygienic department.

Hez. Williams, M. D., Physician at Alton, reports:

"Sixteen hundred and forty-nine patients have been received at the hospital [in eighteen months], and their symptoms of disease, and surgical and medical treatment placed upon its records. Of this number, twelve have died. This small proportion of mortality, and the general good health of the prisoners, is justly attributable to the careful attention bestowed by the officers of the prison on the preservation of scrupulous cleanliness in all departments, to an abundant supply of wholesome food, and to the maintenance of good discipline; facts of which my opportunities of daily observation in the discharge of my duties as surgeon to the hospital, have made me cognizant."

The report of John R. Casey, M. D., the physician at Joliet, is equally favorable. There were during the year 1859, but nine deaths. During eleven months of 1860, but nine deaths, and of this number, three died of phthisis contracted before entering the Penitentiary.

Whole number of deaths in both branches—*thirty* in two years.

To Business Men.—Your attention is requested to this Journal as an advantageous advertising medium. Enjoying as it does, the largest circulation of any professional journal in the North-West, and with constant additions to its subscription list—going into almost every town and city of any importance in this section of the country—a notice in its advertising columns will be sure of vastly greater publicity than usually befalls advertisements in most periodicals. Terms as moderate as could reasonably be desired.

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DR. J. ADAMS ALLEN,
Box 4458, Chicago, Illinois.

RUSH MEDICAL COLLEGE.

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Professor of Chemistry and Pharmacy.

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Professor of Materia Medica and Medical Jurisprudence.

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The annual announcement will be issued soon.

☞ For information with regard to the institution, address the Secretary, R. L. REA, M. D.
Chicago, Ill.

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ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON THE THERAPEUTIC ACTION OF THE OXALATE OF CERIUM IN THE VOMITING OF PREGNANCY.

BY H. W. JONES, A. M., M. D.

A BRIEF account of a series of experiments with the salts of Cerium, was presented to the medical profession, by Dr. Simpson, of Edinburgh, as early as November, 1854.

But I have seen no notice of the therapeutical action of this metal upon the economy, as observed by American physicians until quite recently.

In the October number of the American Journal of Medical Sciences, Dr. Charles Lee reports several interesting cases of nausea and vomiting, dyspeptic, or accompanying pregnancy, in which the happiest effects followed the administration of Cerium.

The results of my own experience, though meager, may serve at least to stimulate inquiry in a direction where there is, confessedly, much to be gained, both by physician and patient.

The following cases, from notes in obstetric practice, comprehend the several instances in which I have used the Oxalate of Cerium since August, 1860:

CASE FIRST.

Mrs. M. H., aged 26, consulted me August 3rd, 1860. She is of sanguine temperament, nervous, haggard in appearance. Says she is in the third month of her pregnancy, and has been subject to distressing attacks of nausea and vomiting since the disappearance of her menses. At first, these attacks were confined to the early hours of morning; but of late, she complains of being never entirely free from nausea, and that vomiting follows any attempt at deglutition, whether of solids or fluids.

Has taken alkalies and used counter-irritation in vain. The bowels are costive—tongue furred—pulse small and frequent; tenderness of epigastrium on pressure. Has general appearance of great prostration.

Treatment.—The bowels were moved by injections of cool water, and enemata of beef-tea, containing *Quinia*, were administered four times a day, with the addition of two grains of *Opium* at night. Ice in small quantities to be swallowed often during the day. No food was allowed by the mouth. Sinapisms over stomach, so as to afford continuous irritation, but not to vesicate.

August 5th—Patient has slept well—"feels stronger"—no tenderness on pressure over epigastrium; has taken and retained, this noon, a teaspoonful of milk porridge.

She continued in about the same condition for several days, nauseated and distressed in the morning, but able to bear a little milk or rice in the afternoon, in the meantime using small doses of *Hydrocyanic Acid*, with the mildest bitter tonics, which were in turn supplanted by other remedies, as they failed to afford relief.

Aug. 12th—The patient begins to-day upon the following:

℞ Cerii Oxalat, Gr. xxiv;
Sacchar. Alb. ʒ ss;
M. ft. chartul, No. xii.
S. To take one powder every three hours.

Aug. 13th—Had less nausea this morning; has taken a small portion of chicken with her rice this afternoon. "Feels hungry," but "fears to eat."

Continues the remedy once in four hours.

Aug. 15th—Patient had no nausea this morning; ate a small piece of steak for breakfast; looks much better.

From this time, her improvement was steady; the gastric irritability recurring slightly at quickening, but yielding speedily to the Cerium.

At present, (8th month,) she is "perfectly well," having not only a good appetite, but excellent digestion.

CASE SECOND.

Sept. 10th—Mrs. C., aged 32; bilious temperament; pregnant with her third child—in eighth month. Complains of "morning sickness;" sometimes severe vomiting and retching, with great prostration and attendant pain in back and loins; fears "miscarriage." Was similarly affected in the early weeks of this, but did not suffer much in her previous pregnancies. Bowels regular and habits good.

Treatment.—From its success in the former instance, the *Oxalate of Cerium* was at once prescribed, in doses of two grains, to be taken half an hour before rising from bed, and if necessary before each meal.

Sept. 24th—Patient has experienced but one attack of vomiting since I saw her, and that followed an omission of the remedy before breakfast. She was soon able to dispense with it altogether, and was delivered at term, having had no relapse.

CASE THIRD.

Oct. 28th—Mrs. R., aged 25; sanguine temperament; third pregnancy. Has, in former pregnancies, suffered so much from nausea and vomiting, as to render her incapable of attending to household duties, and deter her from the enjoyments of social life. Never found any relief from remedies advised. Does not know how far advanced she may be, as conception took place during lactation. Vomits usually before breakfast, and food at any time produces discomfort. System otherwise in good condition.

Treatment.—As in Case 2nd, with "entire relief" of the symptoms by the third day.

No return of the difficulty as yet. (Jan. 1st.)

CASE FOURTH.

Oct. 31st—Mrs. ——, aged 22—sanguine temperament; primipara at eighth month. Complains chiefly of want of appetite. Relishes nothing but pickles and spiced food, but is nauseated and griped after taking it. From third to sixteenth week suffered regularly from "morning sickness." Coffee then relieved her; now has no effect.

Treatment.—Oxalate of Cerium, two grains, three times a day, an hour before meals. Regulated diet: no acids allowed.

The appetite became better; unnatural cravings disappeared. Remedy given up after fifth day. Nausea sometimes recurs, but is speedily relieved by the powders.

CASE FIFTH.

Nov. 14th—Mrs. S., aged 20—nervous temperament; anæmic appearance. Was married at sixteen, and has had two abortions, one at second month, and the last, in third month, occurred last April. "Didn't know cause." First indication of present pregnancy, was increased frequency of micturition about middle of October. This subsided, and nausea, with vomiting, occurred in the first week of November, when she should have been "unwell." This symptom appeared also in

previous pregnancies. Bowels are costive; has a dull and persistent headache—no appetite, and feels "very weak."

Treatment.—Citrate of Magnesia, pro re nata, with *Citrate of Iron* and *Quinia* in *Madeira Wine*.

Nov. 18th—Bowels soluble, headache gone, appetite better, but much nausea in morning. Tonics continued. *Oxalate of Cerium* advised night and morning, in doses of two grains, before meals.

Nov. 24th—General health much better; does not vomit, though nausea is present in morning as before. The Cerium was now taken every three hours, but proved inefficient, and was given up after a few days' trial. The case is progressing favorably, however, and I hope to carry it through to term. Shall recur to the Cerium if vomiting should again come on.

In these cases, I endeavored to isolate the remedy as far as possible, in order to avoid any misconception which might otherwise have arisen, as to what the amelioration of symptoms might be due, and I do not hesitate to give my confidence to the "*post hoc, propter hoc*" principle, as exhibited in the treatment and results above cited.

Dr. Lee has witnessed beneficial results from the *Cerium* in cases of vomiting in phthisis pyrosis—hysterical emesis—and in atonic dyspepsia, and it is to be hoped that further experiments will establish the usefulness of the remedy.

Dr. Simpson considers it a *sedative tonic*, and compares it favorably with the salts of *Bismuth*, advising its administration in all cases where the latter would be indicated.

"The *Oxalate of Cerium* is inodorous, tasteless, insoluble in water, alcohol or ether, but freely soluble in sulphuric acid, by which it may be distinguished from the other salts of the earth."

It is, I thing, best administered in the form of powder, though a pill form may be convenient. Two grains is a medium dose.

CASE OF DIABETES MELLITUS

IN AN ADVANCED STAGE, TREATED.

BY J. W. McKINNEY, M. D., of Camargo, Ill.

While residing in Centralia, Ill., I was called, on the morning of the 23rd February, 1858, to see a step-son of Mr. S., a lad of about sixteen years old, who, it was stated, had been in bad health during the past eight months. On visiting this patient, I found him greatly emaciated, so much so that he could not sit upon a chair but a few minutes without an attack of syncope. A shrunken and contracted appearance marked his features. His pulse was frequent and feeble; tongue of a red glazed appearance, with a clammy gum on the lips and teeth, and an offensive sweetish odor of the breath. Hearing quite obtuse, which was first observed about three months previous to the above date, since which time it has gradually increased, requiring now to be spoken to in a very loud tone to understand what is said to him. Constant thirst, with an insatiable appetite for food; has been in the habit, daily, of drinking from one to two gallons of water. In the amount of food he has been somewhat restricted for the last two months, yet by no means sufficiently so as to quality. On inquiry, I learned he usually passed from one to three gallons of urine every twenty-four hours, which, for a week previous to my visit, had been attended with more or less pain along the course of the urethra, each time he had occasion to evacuate the urinary bladder.

The urine was of a pale greenish-yellow color, and of a faintly-sweet odor. On putting two fluid ounces of this urine into a loosely covered vessel, and applying a gentle heat, sufficient to evaporate the watery portion, I obtained of solid ingredients in a granulo-crystaline form *five drachms and four-*

teen grains (apothecary's weight) as a residue. The odor given off while this evaporating process was going on, was entirely destitute of the peculiar smell of urine, but, in stead, gave off the strong odor of boiling molasses. The taste was slightly alkaline, with a strong saccharine preponderance.

Having heretofore regarded this disease in its advanced stage as incurable, I could but look upon this case as a hopeless one. Accordingly, I gave the parents of the boy to understand what I considered to be the most probable result in the case—that we could have but little hope of his recovery; but notwithstanding this, I would put him on a course of diet and medicine that I wished strictly to be carried out, assuring them at the same time that all hope for his recovery depended upon the faithfulness with which they would adhere to the treatment. After being assured that all our directions would be strictly persevered in, I directed him to be put on an almost exclusive *animal diet*, composed of boiled beef or mutton, with bread made of wheat flour from which all the starch was to be carefully washed, and then "made light" before baking. Of this, he was permitted to take for breakfast and dinner, one quarter pound of the beef or mutton and four ounces of the bread at each meals. For supper, two poached eggs, with a little butter to make palatable, and the same amount of bread as at each of the other meal. In addition to this, he was ordered to take one half pint equal parts fresh milk and lime-water at each meal; besides this, his drink not to exceed one pint of water per day.

Ordered him to take of the Syr. of Iod. Ferri 1½ drachm, with 25 gtt. Laudanum, at 12 A. M. and 6 in the evening.

Feb. 14th—Patient had rested tolerably well during the afternoon and night; had urinated five times during night, with a slight diminution in quantity of urine voided; complains considerably of pain in the urethra when urinating. Ordered Bi-Carb. Soda 10 grs. with 20 grs. Calomel to be given at once, and if the bowels are not operated in six hours, to give a dose Oleum Ricini. As soon as bowels were opened, to give Carb.

Ferri 8 grs., Quinine 3 grs., with 20 gtt. Laudanum every six hours.

Feb. 25th—Calomel had operated freely without taking oil. Stomach very much nauseated before calomel operated; very thirsty during night, with slight increase in the amount of urine passed. Tongue moist, but coated with a whitish fur; clammy accumulations on the lips and teeth; pulse feeble and frequent.

Ordered a continuation of the Carb. Ferri and Quinine, as on the previous day, alternated with the Syr. Iod. Ferri 1½ dr. every three hours. The diet to be strictly adhered to as directed at my first visit, with no more than a pint of water in addition to the milk and lime-water as drink in twenty-four hours.

Feb. 27th—Patient much the same as at last visit, with less thirst. Continue treatment.

March 1st—Patient seems to be improving. Ordered a discontinuation of the Syr. Iod. Ferri, and about 4 grs. Carb. Ammon. to be added to Quinine and Iron given every 6 hours. Laudanum to be omitted in all the portions, except in the evening.

March 4th—A decided improvement is apparent in every condition of the patient this morning. Continue treatment, omitting the dose at midnight. Suffice to say that this patient gradually improved under the above treatment, which was faithfully kept up till the 20th of May, at which time he was entirely rid of all diabetic symptoms, and seemed to be in the enjoyment of good health.

CASES OF GUN SHOT WOUNDS OF THE RIGHT LUNG AND THEIR TREATMENT.

BY H. C. CLAPP, M. D., CHICAGO, ILL.

James Clark, resident of Pine Grove township, Van Buren Co., Michigan, a laborer aged 21 years, an Englishman by birth, of a tough, hardy constitution, and sanguine bilious temperament, on the night of the first of August, 1848, together with several others, went on a *charivari* party; the captain being armed with a rifle loaded with powder and a tarred rope wad. While engaged in their sports, the rifle was accidentally discharged, the contents passing through the coat of a Mr. Love, also the coat vest and shirt of the wounded man, entering the right lung at the middle bone of the sternum, breaking off the connections of the second rib from the first bone of the sternum, and the third rib from the second bone, making an opening about the size of an half-dollar, and lodging in the middle lobe of the right lung.

I first saw the patient twelve hours after the accident; found him lying upon the floor, a lady holding a compress closely over the opening. Reaction had not taken place, and whenever the compress was removed, the air and blood would rush with force through the opening.

After making a thorough examination of the wound, I extracted the wad which was deeply imbedded in the lung, together with portions of the powder—burnt lung. Adjusting the sternum and ribs as nearly as possible, I covered the opening with a soft piece of buckskin, with several compresses over that to keep it in its place, and fastened the whole by a roller around the body.

Aug. 3rd, 11 o'clock A. M.—Reaction has thoroughly taken place—pulse full and strong, with considerable fever. The

compress has not been removed, no air or blood escapes under it; air only enters the large bronchial tubes of upper lobe of the right lung. He complains of great soreness, but his breathing is less painful than could have been expected from so extensive a wound of the lung. The left lung does not sympathize in the least with the injury of the right one. Bled him 24 oz., ordered a saline cathartic, and that the roller and compress should not be removed, unless suppuration should be so extensive as to impede respiration, in which case remove the roller and compress and let the pus be discharged, and introduce through the opening half a teacupful of chloride of soda (disinfecting solution) to remain for a few minutes, and then to be discharged and the compress and roller replaced as before.

Aug. 4th, 12 M.—Had passed a restless night; compress had to be removed early in the morning, when there was discharged nearly two quarts of dark, bloody, fœtid matter. The cathartic had operated nicely, but still there is too much arterial action; the pulse is 80 per minute, full and hard; complains of great pain in right side. The left lung, as yet, is clear from inflammatory action. Bled him 16 ℥, which produced slight syncope; ordered the disinfecting solution introduced each time the compress was removed for the discharge of the pus.

Aug. 5th, M.—Passed a more comfortable night; the compress had to be removed three times since yesterday noon, and discharged a full pint at each time. Fœtor very offensive, so much so as to be distressing to the patient. The disinfecting solution does not correct the fœtor. Ordered chloride of lime, a large spoonful dissolved in a pint of cold water, and two thirds of a teacupful introduced by the wound after each discharge of matter. The pulse is 100 per minute, with but little fever.

Aug. 6th, M.—Found the patient to-day very weak, and but little inclined to converse; pulse 110, with no fever. Every time the compress is removed, portions of the lung are dis-

charged with the pus. The chloride of lime solution has destroyed the fœtor in a great measure. Continue the solution of chloride of lime as before, and the patient to have a more liberal diet and to be supported by wine three or four times a day.

Aug. 7th—Dr. Andrews, of Paw-Paw, visited the patient with me to-day. Found him very low; pulse 120 per minute, and so weak that he could not be turned over to have the matter discharged freely without great suffering. Several pieces of the lung have been detached and discharged through the opening during the last twenty-four hours. The fœtor has mostly disappeared. Opened the side between the fifth and sixth ribs, to give the matter a free exit. The opening in the side to be kept free by inserting a tent cloth to be removed as often as necessary for the discharge of the pus. Ordered quinine and wine to be given every three hours, together with nourishing diet; solution of chloride of lime to be continued as before.

Aug. 8th—Found patient more comfortable, pulse 112, matter had discharged freely through the opening in the side; the compress had only to be removed to introduce the solution of chloride of lime, on the removal of the compress the air during inspiration does not rush with nearly the force through the opening as at first. Continue treatment.

Aug. 9th—About as yesterday, with but slight if any improvement. Several pieces of the lung have been discharged from the wound. Continue treatment.

Aug. 10th—The pulse is 110, the middle lobe of the lung is wholly destroyed; the lower lobe lies in the cavity slowly wasting away, but the discharge is gradually decreasing in quantity. The left lung begins to enlarge and push itself slowly, but yet perceptibly, to the right side. He has rested better for the last two nights than since the accident. The patient under the same treatment continues gradually to improve from this time on until the first of September, when his pulse is only 80 per minute, and he has but slight fever. The

discharge has decreased at least one half. The whole of the middle and lower lobes of the right lung are destroyed, and have been discharged. When the compress is removed from the wound, but a small quantity of air rushes through the opening at each inspiration. By holding a light near the opening you can plainly see into the right cavity of the chest in which was once located the lung which is now wholly destroyed with the exception of a small piece of the upper lobe. The left lung has enlarged to such an extent that nearly one fourth of the opening is closed by it. The solution of chloride of lime to be used hereafter only morning and night; the wine continued three times a day, with liberal nourishing diet.

The patient continued gradually to improve, the discharge became less day by day, and in six months had stopped entirely. The large bronchial tubes had cicatrized and no air passed into the right cavity of the chest. The left lung has enlarged, pushed itself across to the right side. The pleura has attached itself to the edges of the wound and closed the opening entirely. Eleven years have now passed since the accident, and from the time the wound healed to the present, he has been able to attend to his daily labor, and says he feels no inconvenience from the loss of the lung; can do as much labor as previous to the injury, and is not troubled with shortness of breath by hard exercise. The heart is somewhat displaced and pushed to the right side, caused undoubtedly by the enlargement of the left lung.

In this case, I am satisfied the patient owed his recovery in a great measure to the use of the solution of chloride of lime. It not only destroyed the fœtor, but it kept the parts clean, and induced healthy action, which, in my opinion, could not have been obtained from any other remedial agent.

Since the above case, I have used the solution of chloride of lime in several cases of old ill-conditioned ulcers, with the happiest effect. Also in a case of empyema of the left thoracic cavity, of seven years standing, which followed an attack of bilious pneumonia, and was opened about one inch below

the left nipple, and for the last three or four years there had formed four fistulous openings from which pus discharged freely. The discharge of matter was so great, that the young man was reduced to a mere skeleton, had slight hectic fever, and was only able to sit up for a short time a day. I opened the side about two inches below the nipple at the lowest fistulous opening, and inserted a silver tube through which I injected a solution of chloride of lime three times a day. Within ten days, the patient showed marked signs of improvement, and in four months was able to resume his trade and labor about half the day at a time, and by the continued use of the solution, the lung and opening in the side have healed entirely. For several weeks after inserting the tube, whenever the cork was withdrawn, at every inspiration, air would rush through the tube. No other remedy was used as an injection into the cavity, but the solution of the chloride of lime.

During the Mormon war in 1846, Mrs. ———, aged twenty-five years, mother of two children, resident of Nauvoo, Hancock county, Illinois, was accidentally shot. I saw the patient one hour after the accident. When the injury occurred, she was leaning over a wash-tub rubbing clothes. The ball struck her just at the lower edge of the scapula, between the sixth and seventh ribs, passed through the right lung and lodged in the right mammary gland. She had bled quite freely from the wound in the back, considerable difficulty in breathing, and whenever her head is raised complains of faintness. Dressed the wound by introducing a tentcloth to be removed if the cavity of the chest became so filled with blood as to impede respiration. I did not extract the ball from the breast. Saw the patient again in six hours; her dyspnœa continued; removed the tentcloth, when there followed from one to one-half pints of fluid blood, which relieved her very much. Reaction does not come on; she is still faint and expectorates some blood. Saw her again the next morning. Found respiration in right lung very painful; reaction not yet fully established. Removed the tentcloth; but little escaped; but

on introducing a probe and bearing down the inner flap of the wound, about one pint of dark but fluid blood was discharged with marked relief. She has but slight if any fever; pulse ninety-five; expectorates considerable bloody mucus; ordered a mild cathartic of P. Rhei, and again closed the wound with tentcloth to keep it free until the effusion of blood into the cavity of the chest had ceased. Visited the patient again in the evening; found her easier, respiration better; reaction has taken place; the skin is warm over the whole body; but slight fever; expectorates considerable blood; cathartic has operated; soreness in right side much less than I anticipated from a wound of the lung; saw the patient again next morning; respiration little better; still expectorates some bloody mucus; but less than yesterday. Again removed the tentcloth and introduced the probe, but there was but a small discharge of sanious pus; pulse 85, with but slight fever. The wound was kept open for two weeks, and was then allowed to heal, and in six weeks she was able to walk about the house. She recovered entirely.

Mr. John Dolby, aged 22 years, of strong constitution and bilious temperament, an Englishman by birth, and resident of Waverley Township, Van Buren County, Michigan, left his home on the 25th day of December, 1857, to visit Paw-Paw on business. While passing by a place where the citizens were gathered for a shooting match, he was shot by the accidental discharge of a rifle. He fell as though shot through the head, but remarked to friends that went to his assistance, that he was badly wounded. Saw the patient four hours after the accident. Found him bolstered up in a large arm-chair, his feet supported by another. The ball, before it struck him, passed through a white-wood board one and one half inch in thickness, and entered the right arm between and above the insertion of the deltoid and pectoralis major muscles, passing below the axilary artery and large nerves, and entering the right side between the second and third ribs, passed through the upper lobe of right lung and in front of the spine, and lodged just

under the skin, between the third and fourth ribs, whence I immediately extracted it. In its passage, the ball must have hit the vertebral column, as for several days he had but partial feeling and motion in the lower extremities. His breathing was hard and laborious; skin cold and covered with cold perspiration; pulse feeble and over 100 per minute. Bleeding had been but slight. I introduced a large grooved director through the wound in the arm and side, and there was discharged about eight ounces of blood. Dressed the wound on the back with adhesive plaster, and introduced a long linen tent cloth into the wound through the arm and side, and fastened it by a strip of adhesive plaster. Gave him ½ gr. of morphine; had his feet put into a warm bath, after which sinapisms to be applied to the feet and stomach. The patient to be undressed and placed in bed, a little on left side, with the upper extremities raised, and bottles of warm water placed around the lower extremities to induce reaction.

Saw the patient again on the 26th; pulse 100 and compressible. Reaction comes on slowly, though the skin is warm over the whole body. Respiration difficult and painful; expectorates considerable bloody mucus. Sensation and motion in the lower extremities improving; complains of the greatest pain at the lower part of the right cavity of the chest. Removed the tent-cloth and introduced the grooved director again, which discharged between six and eight ounces of blood from the cavity, with considerable relief. Ordered a cathartic of Epsom salts. Inserted the tent-cloth, with instructions that it should not be removed until the next day.

Dec. 27th—Patient better. His respiration better than yesterday; air enters the whole lung, yet the respiratory murmur is quite dull at the lower lobe, where he complains of very severe pain. Pulse 95, some fever; reaction has fully taken place. The cathartic has operated; feeling and motion in lower extremities rapidly improving. Removed the tent-cloth and inserted the director, when there was discharged from the wound about four ounces of bloody pus. The wound in the

back has united by the first intention. Introduced the tent-cloth again. The muscles of the arm and shoulder are somewhat inflammed, and it is very painful to the patient to move the arm.

Dec. 28th—Pulse 90; has some fever and expectorates more bloody pus than yesterday. He complains of the most pain in the right cavity of the chest. Air enters the lower lobe of the lung, showing that respiration is still performed, though somewhat obstructed. On withdrawing the tent-cloth and introducing the director, but a small quantity of blood or pus was discharged. He can use his lower extremities very well, and could sit bolstered up in a chair. Left out the tent-cloth to-day and gave him a teaspoonful of the following mixture, morning, noon and night:

℞. Iodide Potassium, ℥ ss,
Fluid Ext. Sarsaparilla, ℥ vi.
M.

Did not see the patient again until the 30th, when I found him sitting bolstered up in a large arm-chair, smoking his pipe. Respiration much improved; pulse 80 and but very slight fever. Feeling and motion in the lower extremities much improved; expectorates some bloody mucus, but less in quantity. The pain in the right side still continues severe. Opened the wound with the probe, and but little matter escaped. Dressed the wound in the arm with adhesive plaster, and directed the Iodide of Potassium as before.

Visited the patient again on the 3rd of January, 1858, three days after the last visit. Found him improving; pulse 80; less pain in the side. Expectorates but little blood. Feeling and motion in lower extremities still improving; the inflammation of the muscles of the shoulder is subsiding. He feels very much encouraged and thinks he will soon get well.

Visited him on the 6th for the last time. Found his respiration very much improved; pain in the side diminished. The wound through the arm and shoulder had closed. The lower lobe of right lung is dull on percussion; expectoration of

blood has entirely ceased. He was carried home on a bed in a sleigh the next day, and I did not see him again until about the 15th of February, when he called on me at my office, in Paw-Paw, having rode fifteen miles in a sleigh that day. Says he still has pain in the right side, and that his breath is shorter than before the accident. He continued to improve, and in the spring was able to resume his labor on the farm.

The above cases are to me very interesting on account of their happy termination and the short time they were each confined, considering the severity of the wounds, and I am satisfied that they show that cases may and do occur where the lung is wounded and bleeding freely, in which the closing of the external wound shuts the only avenue of aid and safety, and the patient dies suffocated from internal extravasation.

A CASE OF ENTERIC FEVER, WITH REMARKS.

BY G. V. EWING, M. D., ROCK RUN, ILL.

In the following case, we do not claim that there is anything peculiar in the symptoms, aside from what is usually seen in "Enteric Fever." Neither is it claimed, that there is anything new in the use of the remedy to which we wish to direct particular attention in the treatment of this form of fever, but rather to re-establish the use of an old remedy which has, to a very great extent, fallen into unmerited neglect.

December 7th, 1859, I was requested to visit C. K——p, a German boy, aged twelve years, who, the messenger informed me, had been indisposed for two weeks, the symptoms being premonitory of fever, languor, copos, formication, pain in extremities, loss of appetite, headache, chills, fever and diarrhœa. All these symptoms had been increasing in violence from the first onset up to the period when I was called, when I found the patient in the following condition: high fever, pulse run-

ning up to 130 in the minute, tongue coated, sordes on lips and teeth, frequent watery discharges from the bowels, abdomen tympanitic, great tenderness in right iliac fossa, urine scanty and highly colored, skin hot and dry, subsultus tendinum, delirium; has not slept any for forty-eight hours.

℞. Pul. Doveri, gr. 12;
Tannin, " 10;
" Opii, " 3;
Hyd. C. Cret. " 10;
M.—In chartulas sex. divid.

One to be taken every four hours in syrup. A teaspoonful of Turpentine Emulsion, with twenty drops Tinct. Valerian, halfway between the powders to be taken. Also, ordered cold to the head and warm fomentations to the bowels.

Dec. 8th—The patient slept some during last night; the symptoms continue about the same. Treatment continued.

Dec. 10th—Not so much diarrhœa as at last date; the other symptoms continue the same. With the addition of a gr. Pul. Camphor to each powder, the treatment was continued.

Dec. 11th—The patient has some refreshing sleep; no material change in the symptoms. Treatment continued.

Dec. 12th—Since yesterday, the patient has had involuntary discharges from the bowels and bladder. Prescribed two grains of Camphor with each powder, to be continued with the other treatment as before.

Dec. 14th—This morning the patient is slightly ptyalized. The symptoms all more favorable; bowels less tympanitic; discharges voluntary and not so frequent; sordes cleaning off the lips and teeth; no delirium; subsultus gone; pulse down to 90. From this date, the patient slowly, but gradually, improved, and on the 21st was discharged from my visiting list, being about twenty-eight days from the first manifestation of the symptoms.

As it is my purpose to direct attention specially to but one feature of the case, (the operation of mercury,) I have condensed the report as much as possible. And I may be

permitted to remark here, that I attribute a most decided effect to the operation of the mercury in this case. By a reference to the case, we find no evidence of permanent improvement, until on the eighth day from the commencement of the treatment, when the constitutional effects of mercury were manifested, and that from that date, the improvement in the symptoms was gradual and permanent. But it must not be supposed that this is an isolated case, in which the good effects of mercury were manifest, and that from it alone our conclusions have been drawn. We do not claim the right to draw conclusions from such limited experience, and establish them as principles of practice; but from an extensive experience in the treatment of "Enteric Fever," I have settled down upon this as a rule, with but few exceptions, that as soon as my patient gives evidence of coming under the constitutional effects of mercury, do I feel warranted in pronouncing a favorable prognosis.

During the past few years, this disease has prevailed very extensively in the Northwest, and in some communities it has been very fatal. In some cases, almost entire communities have been prostrated. So common, indeed, is the disease over the western prairies, that it may properly be considered the popular disease of the times, notwithstanding the dishonorable use which irregular physicians are making of the term Typhoid Fever.

In one instance, I attended eight cases in one family, and on the opposite side of the street, four cases in another family, and within two miles of this point, some fifteen others, all of them being well marked, and unmistakable cases of Enteric Fever.

In all these, a very similar course of treatment was adopted, as in the case reported above. In every case, during the past season, we employed the mercurial treatment, and in only one case was the termination fatal, and in only four did the disease run over twenty-one days after the stage of incubation. In these the effects of the mercury could not be secured.

We are sensible of the fact, that at the present time many of our regular and respectable physicians are discarding this medicine from their list of remedial agents. Whilst we cannot look with any degree of complacency upon "old fogyism," we are also free to confess, that we are not fully adequate to the task of keeping pace with the rapid strides of "Young America." The time was when the *lancet*, *calomel* and the *purge* were the "ne plus ultra" of all medical practice. But in honor to the investigating spirit of the profession, for the last score and half years, this practice has been greatly modified. Every physician of observation knows, and will admit, that mercury, especially in fevers, has been greatly abused. For the injudicious use of this, as well as any other article of the materia medica, the physician, and not the remedy, is to blame. In the hands of some doctors, mercury has no doubt "done harm."

There are, perhaps, but very few of the members of the profession at this day, who will contend that excessive salivation is ever requisite.

There is a point beyond which the remedy should never be carried, and that point has been very properly designated by the term "sub-ptyalism," and is indicated by its first impression upon the gums. At this point the medicine should be immediately suspended, or if it is desired to keep up the impression for a few day, it should be done with great caution.

In cases in which it is necessary to evacuate the bowels at the outset of the treatment, the safest and most efficient for that purpose, is calomel and oil. In the disease under consideration, the indications for the use of mercury are not based upon mere hypothesis. When the vital action has abated, which may be very soon after the patient is brought down, usually some degree of delirium or stupor supervenes; the tongue and skin become dry; the bowels become tympanitic; the urine scanty and high colored; the pulse more frequent and feeble. At this juncture, there is great danger of disorganization of certain organs. Every physician knows how

very unmanageable the disease sometimes becomes at this stage. Under these circumstances, there is perhaps no remedy so efficient as mercury given to the extent referred to. Its antiphlogistic properties—the general failure of the secretions, the languid condition of the vital functions, all indicate the remedy.

Its effects upon the glands of Peyer, in arresting the progress of the disease and hastening resolution, cannot be doubted. As an objection to the use of mercury in these cases, it is urged, that it acts as a local irritant to those already irritated and diseased patches; but we look upon this as a mistaken idea. It cannot act as an irritant if it is properly guarded by astringents and opiates, which are most generally indicated and constitute a very important part of the treatment.

In regard to the claims of mercury in the treatment of Enteric Fevers, we do not wish to lose sight of other remedies; opiates, tonics, the vegetable and mineral astringents, stimulants, and turpentine, all hold important places in the treatment.

If experience and observation are worth anything at all, we are constrained to claim for mercury in this disease all that has been urged in its favor by many of our most eminent American and European authors and practitioners. In the treatment of this disease, there is great discrepancy of opinion. Perhaps if there was greater uniformity in the treatment, as founded upon rational views of its nature, the disease would be divested of much of its terror.

In visiting the sick, we almost dread to pronounce our diagnosis of a case of Typhoid Fever. The prospect of four, six, or even ten weeks illness, excites a sigh that is painful to the sensitive ear. Every facility for arresting the progress of such a disease, is worthy of at least a passing notice. "But when doctors differ, who is to decide?"

MISCELLANEOUS.

TREATMENT OF DIPHTHERIA.

BY WM. HENRY THAYER, M.D., &c.

In the plan of treatment which finds general favor in France, England, and America, at the present time, several results are aimed at: to arrest the local affection, to sustain the patient, and eliminate the poison from the system. Nearly all physicians have concurred in the manner in which these several indications are to be answered. Some, however, consider that the disease may be successfully treated by local measures alone; that caustic applications made to the exudation and the inflamed mucous surface, at the outset, will be the best and all-sufficient treatment; believing that the affection of the throat is the nidus, from which the system at large is affected. Amongst the varieties of diphtheria, we may find some cases that are amenable to topical measures only, and this especially where its onset is gradual. Yet the disease sometimes sets in with sudden violence, with vomiting and purging, or convulsions, or the patient begins early to sink. In such cases, and probably in the very large majority of cases, exclusively local treatment cannot be depended upon.

Local and constitutional measures have been most generally combined, and with a reasonable degree of success.

The local measures consist of the use of caustics for the destruction of the false membrane, or antiseptics, which prevent its decomposition; and milder applications of caustic or astringent solutions for the surrounding parts, and the whole surface, after the removal of the exudation.

The local treatment of Bretonneau, in 1818, was a combination of strong hydrochloric acid, with three parts of honey, applied to the exudation. The same combination has been applied by many physicians since that time. The application should be made twice a day to the false membrane, until it is removed, and as often as it is renewed—to be omitted when the mucous membrane is exposed. After this, the usual plan

is to apply an astringent, such as a solution of tannin or alum. The acid should be applied to the exudation with a camel's-hair pencil.

Another topical treatment, and perhaps the one in most general use, is that of nitrate of silver, which was first recommended for use in this disease by Dr. Mackenzie, of Glasgow, in 1825. It has the advantage of being much more manageable than hydrochloric acid. It is applied in the solid stick, or in strong solution. It is the practice of some to make an application of the stick to the exudation, and of a solution to the whole inflamed surface. It is very important, whatever strength be used, that every part of the reddened surface be reached by the solution. It is desirable to destroy, and remove, if possible, the false membrane, and cauterize the surface beneath; and to repeat the application daily, or twice a day, as long as a disposition to form an exudation continues. Dr. Wells, of Milwaukee, Wis., advises that the false membrane be removed with the forceps, and a solution of nitrate of silver subsequently applied. As the exudation begins to diminish, and the surface around it to improve, the strength of the solution should be diminished, and the applications should be less frequent. Some use the stick, more a solution, of the suitable strength of which there seems to be a great range of opinion—few using more than one drachm to the ounce of water, more not more than gr. xxx, and some as little as gr. xv. These weaker solutions may often be sufficient for the general reddened surface—but I doubt if they are of any value upon the exudation, or the surface beneath it. I prefer to apply the stick to the exudation, and a solution of 2 dr. to 1 oz. to the surrounding mucous membrane, for the early applications, to be omitted or diminished as the disease begins to yield.

A great point in the treatment is to begin it early. The success depends very much upon it. Evanson and Maunsell state that caustics are capable not only of "destroying the false membrane when formed, but of altering the morbid action going on, and so of arresting the progress of the disease," (before the exudation.) "It is a good and safe rule," say they, "in practice, to wash over the back of the throat with a strong solution of the nitrate of silver, the moment the mucous membrane appears affected, when a child sickens during the prevalence of scarlatina, diphtherite, etc. The case is thus not only made manageable, but the evil altogether averted."

Dr. Ramskill, of London, objects to the indiscriminate use

of caustics. He thinks "the cases in which it does act well are those in which there is little effusion or swelling into the surrounding tissues, and under the diphtheritic patch, with no marked tendency to glandular engorgement." He believes that in some cases caustics have produced great enlargement of the glands, and aggravation of all the symptoms, and says, "in fact, in all cases where the first application of caustic has shown the tendency to excessive glandular enlargements, the local treatment cannot be too soothing and gentle." (*Lancet, Feb.* 1859.) It is a suggestion worthy of attention, but which has not, that I am aware of, been confirmed by the observation of others. The only other objection to the use of caustics, that I have met with, is from Mr. Bristowe, and on purely theoretical grounds.

The remaining applications most in favor are Tincture of the Sequichloride of Iron, Chlorate of Potash, Chloride of Soda, of Lime, and of Sodium, or various combinations of them, as in the Chlorine Mixture, which is composed of Hydrochloric Acid and Chlorate of Potash. Alum, Borax, and Tannin, have also their advocates.

The Tincture of the Sequichloride of Iron is applied in full strength with the brush. Chlorate of Potassa is used in saturated solution, which is about gr. xviii to the ounce; the Chloride of Soda, in "Labarraque's Solution," diluted to the strength of 1 dr. to two ounces; and the Chloride of Sodium has been used in strong solution, or with vinegar—a form which has long been a popular gargle, in inflammation of the throat. These various medicines are used as gargles—the most uncertain method, and out of the question with children—or are applied with a camel's-hair pencil, or by means of a syringe.

Mr. Hutchinson, of London, illustrates the value of Chlorate of Potash as a local application, in a case of buccal diphtheria—of which the following is an abstract. A pallid, delicate boy, eight years old, was admitted to the Metropolitan Free Hospital—with his right cheek greatly swollen, tense, and hot—lined with a diphtheritic exudation, and with gums inflamed, and bleeding at the slightest touch, and very fœtid odor to the breath. This condition had existed a fortnight. "It is well known that for the form of stomatitis above described, chlorate of potash, in full doses, is almost a specific. Wishing to ascertain whether its virtues are due to its local or its constitutional influence, Mr. Hutchinson ventured to direct that it should be used only topically." It was carefully and

thoroughly used as a wash every two hours, and no other treatment employed. At the end of a fortnight the mouth was well. The boy still looked well, and steel wine was prescribed.

Mr. Hutchinson very pertinently asks, "Why not try the chlorate as a topical application in cases of pharyngeal and tracheal diphtheria?"

It cannot fail to be noticed, that many of the remedies employed in diphtheria, are combinations of chlorine. And all the various compounds appear to have been adopted without any preconceived notion of the special applicability of this element to the disease, but by experience with them in a variety of affections, some of which are kindred to it. Thus, the Tr. Ferri Sesquichlor. was adopted for its excellence as a topical application in erysipelas; the chloride of soda and of lime, as useful applications for foul ulcers; the chlorate of potassa, from its successful administration in aphthous stomatitis: and chloride of sodium with vinegar, from its use in tonsillitis. There is same analogy of Mr. Hutchinson's results, in the abortive treatment of small pox by repeated daily ablutions with chlorine water, as described in Champonnierre's Journal of Medicine and Surgery, Art. 5627.

The data for forming an opinion of the value of local treatment are often unreliable, from the imperfect manner of applying the wash to the fauces. This is especially the case when we depend on gargles, or leave applications to be made by a nurse. They should be directed in such forms as to insure their thorough use, if necessarily delegated to nurses. In a case of severe diphtheritic inflammation after scarlet fever in the spring of 1859, it extended through the fauces, the pharynx, and the posterior nares, with great swelling, and a considerable semipurulent discharge from the nostrils. I made thorough application of Labarraque's Solution, diluted, several times daily, by means of a syringe, throwing a stream through the nostrils, and also through the fauces. It is less painful and less troublesome to a child than the same application made with sponges, and is far more thorough. The nose and throat are cleaned of pus and mucus, and loose exudation membrane, which are coughed, vomited, or spit up, at the same time that the wash is a curative application to the inflamed surface.

Dr. Lawrence, of North Adams, says, "I relied on the inhalation of steam as a local application, except in two cases, when I used the nitrate of silver. Steam has many advantages over the caustic, as the child does not object to breathing

it, and consequently is not disturbed. In one case where the throat so far as could be seen was blanketed with the peculiar membrane, and suffocation seemed imminent, I was gratified to see the whole thrown off entire by the sickness caused by the inhalation of steam. The breathing was at once relieved, and the child recovered." I have no doubt, from experience in the employment of a constant inhalation of steam in membranous croup, of its great value in cases of diphtheria; but, whether it can safely supersede the caustic in grave epidemics, remains to be proved. The cases in North Adams were not of the gravest form: in eighty-one cases there was no death, and not one had any form of paralysis as a sequel. Dr. Lawrence's experience is nevertheless very instructive and valuable.

After the adoption of a course of active local treatment, two other indications remain to be answered: to sustain the patient and eliminate the blood-poison.

In the attainment of these objects, there is entire unanimity in the medical profession. The disease is everywhere recognized as one to which antiphlogistic treatment is inapplicable; but a steady tonic and stimulating course with the most nutritious food, constitutes the usual course of general treatment, and that which will not only best sustain the patient, but restore the normal condition of the blood.

The compounds of chlorine administered internally seem to be as well employed as in topical applications. The chlorate of potassa alone, or in combination with hydrochloric acid (in the "chloric mixture,") is the most used. It should be given in full doses, frequently repeated—ten grains every four hours for an adult, and a proportional amount for children. But it need not be limited to this quantity, if a larger amount can be administered. Chlorate of potash has an advantage over the tincture of the sesquichloride of iron, as an alkali—in its resolvent effect on the fibrine of the blood, and hence a probability of its diminishing and arresting the exudation. If, as is possible, it answers this purpose as well as mercurials, it is undoubtedly better that it should be employed in preference to them.

I believe that there is a very general inclination at the present time to treat membranous croup (a sthenic disease) without mercurials. If, then, medical men have arrived at the conclusion that their success is greater in the treatment of that affection without calomel, there appears to be a still stronger objection to employing it in a disease of so low and malignant a type as diphtheria.

It would not be fair to omit the evidence of Conolly in favor of mercurials, who with Bretonneau and Guersent advocated their use, and reported that their employment had been followed by great success. "To insure its success," says Tweedie, on Conolly's authority, "the full mercurial influence is necessary." At the same time, it must be remembered that the testimony was given thirty-five years ago, since when the disease itself has become more adynamic; and that the general recommendations of mercury by these gentlemen must be received with the allowance which should always be made for the admiration of a new remedy; it was a new remedy at first, and reluctantly adopted by the French physicians, on Dr. Conolly's representation.

Evanson and Maunsell, who advise mercurials, do so with a caution against worse effects by dangerous salivation.

So also of its employment at a later stage. I cannot avoid thinking it especially ill-judged to mercuralize a patient—if wise at any stage—at the somewhat advanced period at which the croupal symptoms usually appear in diphtheria, as the peculiar adynamic condition also is approaching, if not already begun, which must be hastened and aggravated by a mercurial course.*

The Sulphate of Quinia is a valuable medicine, and is used by some in preference to Chlorate of Potash. I have not been in the habit of combining them. Mr. Jennings, of Malmesbury, England, prescribes Quin. Sulph., Potass. Chlor. et Acid. Hydrochl., in combination, every four hours. If chlorate of potash has as good an effect, it has one great advantage over quinine—that a child will take it more willingly. Mr. Bottomley, of Croydon, Kent, also recommends quinine, which he added to the chlorine mixture, after the third day, in an epidemic which he treated with great success.

Turpentine is another stimulant that has met with favor. Dr. E. Perry, of Marden, Kent, advises for a child between two and six years old, two minims of Oleum Terebinthinæ every second hour, and five grains of Ammoniæ Carbonas every second hour—the child taking the turpentine one hour

* The correct views on the nature and treatment of typhoid fever, which are extending more widely every year, are gradually eradicating the mischievous practice of mercurialization, which has been a part of the established treatment of fever, but even among those physicians who read and think, and entertain better ideas, we find some who do not dare to withhold the calomel, when the tongue is getting dry and black. As in fever, so in diphtheria, it is not mercury, but turpentine, quinine, and wine, that the dry, black tongue, (with its typhoidal concomitants,) wants.

and the ammonia the next—especially in cases where the larynx has become involved. He says, "I was induced to try the turpentine from having noticed its effects when given as advised by Dr. Carmichael in cases of iritis in broken-down constitutions, where mercury could not be used; and where there is so great a tendency to the effusion of lymph in the chambers of the eye. We all know, too, how effectual it is in other diseases, acting like mercury in many respects—but stimulating instead of debilitating—and hence its appropriateness in diphtheria, where mercury, I believe, hastens to fatal result." He makes no caustic or other application to the fauces—but sustains the patient with wine, porter, and beef tea.

Besides quinine, chloric, or turpentine, diphtheria requires alcoholic stimulants. The flagging powers of life need frequently repeated excitants, to sustain them against the steadily depressing influence of the disease. As soon as the febrile action has subsided—which is usually present during the first day, but hardly ever continues beyond the third—some form of alcoholic stimulant may be safely and usefully administered. It is better to begin it then, than to wait for symptoms of collapse. The absence of heat, the weakness of the pulse, and the tolerance of the first carefully administered drams, will be sufficient indications of the necessity. But we might without hesitation say that the presence of the disease is alone a sufficint indication. The only guide to the amount is its effect in each case; there is usually very great tolerance of wine, brandy, or whatever form can be most easily administered. There is only one writer—Mr. Jennings, already quoted—who has any doubt of the usefulness and necessity of alcoholic stimulation in all cases in which there is any depression. This gentleman, who claims great success in his cases, which have been treated very actively, advises "quinine in large doses, and the avoidance or guarded use of alcoholic stimulants."

There is no specific for diphtheria, and the advantages of the various agents which have been described are not claimed as such. Several of them have been almost universally employed, and with favorable effect in proportion to the curability of the cases. But it is not to be denied that many of the cases might have done equally well on other remedies than those which were used, so that the general plan of treatment was preserved. It is possible that quinine may in many cases take the place of alcohol; but certainly the most malignant cases require a very free use of wine or rum. In different places we find a sufficient variation in the disease to make it

probable that the indications are not always the same; it is doubtless attended with less depression in some places than others. Therefore, any individual opinion like this of Mr. Jennings, must be received with allowance. Most writers express very strongly the same opinions that I have advanced. Thus Dr. Perry, already quoted, says, "besides the medicinal treatment, the child takes port-wine, porter, and beef-tea, or wine with the yolk of an egg, *ad libitum.*" Mr. Cammack, of Boston, England, "A little mutton, every day; boiled milk, rich gruels, and beef-tea, with hot port-wine and water, for all above ten years; and warm milk and water for minors. All things should be taken warm." Mr. Bottomley, "The diet consists of concentrated jellies, strong beef-tea, wine, etc." Mr. C. S. Smith, "the diet to consist of strong beef-tea, port-wine, and, in short, all the nourrishment the patient can take." Mr. Thos. H. Smith says, in the British Med. Journal, "I need not dwell upon the necessity of wine, beef-tea, etc. In the severe cases, they are most urgently required, and must be liberally supplied. In the more trifling cases, if well-marked, convalescence will be delayed, and danger of relapse continue, if these, or their equivalents, are not employed." Mr. McDonald, of Bristol, says, "After a clearance of the bowels with calomel and rhubarb, I order strong beef-tea, wine, and above all, Boss's pale ale; the patients express themselves much relieved in the throat as it is swallowed, and feel greatly exhilarated after taking it. One gentleman drank twelve pint bottles of it in the course of a night." Dr. R. W. Crighton, of Scotland, says, "I had not treated many cases before I found the necessity of resorting (in most cases from the very commencement) to stimulants, and the most strongly nutritive diet, as brandy and beef-tea; and these, in general, could not be withdrawn until an advanced period of the convalescence." (*Edinboro' Med. Journal, Feb.* 1860.)

When solid food can no longer be taken, beef juice, prepared according to Liebig's formula, furnishes the most concentrated nutriment that is available—to which may be added whey or strong porridge for variety. Difficult deglutition very frequently makes it impossible to take the necessary amount of nourishment. In this case we should, without delay, resort to its administration by the rectum. It is very common to make use of nutritive enemata only *in extremis;* but they are given with so great ease and no inconvenience, and supply so well the wants of the system, that there is no need of waiting a single hour after the sufficient amount cannot be taken by

the mouth. I have found that two or three ounces of beef juice can be retained and absorbed by a child every five or six hours; and a smaller quantity will be enough for a very young child. One ounce every four hours—six ounces a day—(equivalent to the juice of two pounds of beef,) will usually be sufficient for a child of three years of age, in addition to the alcohol it takes. And, if necessary, alcohol diluted can be given by the rectum as well as the beef juice. It is well to add a few drops of laudanum to the enerma—but after two or three enemata, they will generally be retained without it.

Blisters are objectionable, on account of their liability to become affected with diphtheric exudation. And, even without this danger, there is no evidence of their giving any relief.

Dr. Bostwick, of Red Rock, N. Y., excises a portion of the uvula, which he finds very long and œdematous, and has found the operation check the local affection very materially.

Excision of the surface of the tonsils has been advised, but I am unable to say with what success it has been practised; if such treatment were capable of removing the disease, it would furnish the best evidence that it originates locally, as some suppose.

Tracheotomy has been performed in cases where croupal symptoms arose, and has been successful in several, but in an extremely small number of instances. The constitutional disease which underlies the laryngeal affection, places it of course in a very different category from croup, and renders a fatal termination almost inevitable. Dr. Seymour, of Troy, says in a private letter, "the few cases I have seen (of the croupal form) impressed me with the idea of far less physical obstruction than exists in a case of inflammatory croup; for though the voice might be very much smothered and husky, and æration interfered with, there was not that sibilant or shrill sound to the voice, and it will be at times quite loud and distinct, though the forced respirations in crying are at the same time husky. The effect of the difference, in my judgment, was to this opinion—that tracheotomy was not indicated nor could be of the same service as in inflammatory croup The parts seemed more poisoned than plugged." The false membrane is not found after death in these cases so thick as in membranous croup; forming in the larynx usually at a late period, therefore of fewer laminæ and less consistence than on the fauces; and consequently the calibre of the larynx is less diminished than in croup. Yet in the enfeebled condition of the patient, we can easily believe that no obstruction to respira-

tion can be safely borne; hence it does not surprise us that cases in which the croupal symptoms are present, are almost invariably fatal.

Besides the constitutional state, it is another objection to tracheotomy that the false membrane frequently extends through the trachea and a considerable portion of the bronchi, rendering the operation fruitless; a condition that exists in membranous croup indeed, but less often, I believe. Dr. Bontecou, of Troy, operated on a child, who lived five days afterwards. At the *post-mortem* examination "the exudation was found extending down into the bronchial ramifications of one lung, which was hepatised."

To express in a word the present state of the question of tracheotomy, Trousseau now makes it one of several conditions of operating in membranous laryngitis, that the disease shall not be diphtheric. (*Champonniere's Journal*, 1859.) In diphtheria, the operation is almost invariably followed by death; while in membraneous croup, Trousseau states that of late years, since he had adopted the plan of operating before the circulation is seriously embarrassed, half his cases of tracheotomy in private practice have recovered.

The local applications, the tonics and the stimulants, important as they are, are fully equalled in necessity by measures for free ventilation and cleanliness. There can be no doubt that not only is the disease rendered infectious by the neglect of these precautions, but the severity of the cases already under treatment is very much increased. There is in the medical profession generally, about the same amount of belief in the value of free ventilation and cleanliness that will be found in the best informed half of the community—a theoretical, not a practical belief in the standard sanitary doctrines. For I believe it will be admitted that very few, even medical men, look upon these means as anything more than *juvantia:* their directions for the ventilation of sick rooms are seldom given with any approach to the exactness and sense of their importance, which are employed in prescribing medicines or diet. The history of diphtheria makes it clearer than day that no cause is more effective in spreading it and making it virulent, than crowding and foul air. Segregation of the sick, and the most thorough and unintermitting change of the air of the room and house, are absolutely indispensable.

The directions of Nathan Smith for the hygienic treatment of typhoid fever, are applicable to diphtheria. An open chimney with a fire in it, is the first indispensable. The bed must be

so arranged that the air from out-of-doors shall blow over and around it all the time.* Nurses require to be repeatedly assured that the patients will not "get cold" in bed, if sufficiently clothed, and the attendants must protect themselves. And the more bare the room is of furniture, especially of drapery or any kind of stuffs, the fewer media of infection there will be. The bed-clothes must be changed daily, and thoroughly aired, morning and night, while the patient is removed to another bed.† At the same time the danger of fatal syncope should not be forgotten at the advanced stage of diphtheria, and the erect position should be studiously avoided. And, lastly, thorough daily ablution of the whole body is imperatively necessary.

Diphtheria cannot be considered a disease whose treatment is uncertain, or still merely matter of experiment. We are justified, by all experience, in holding clear views of the manner of meeting its indications. It is no condemnation of the method usually pursued, that it is fatal in so large a number of cases. As in typhus, typhoid, scarlet, and congestive fevers, a varying proportion of cases will occur in every epidemic of so virulent and malignant a nature that medical treatment is unavailing. The best methods, applied even at the outset, have no effect in saving life or mitigating the severity of the symptoms. Then, casting out such cases, there are many others which are fatal from being neglected until the disease

* Florence Nightingale's little book on Nursing, to which her great name has given the currency it deserves, as perhaps the most thorough and earnest book of the kind that ever was written, is full of good doctrine, and delivered with a directness of personal appeal, that scientific conventionality often forbids medical men to use. It is a book not merely for the people, but a true guide to professional men, sound in hygienic teaching, and especially applicable to such diseases as the one now under consideration. If some of her views on the spontaneous origin of zymotic diseases are not sound, they are not dangerous, but quite the reverse. No man need be ashamed to strengthen his hands by her authority; and no one who has earnestly striven all his life to impress upon those who come under his influence, the superlative value of hygienic agencies, in the prevention and treatment of diseases, and especially in the staying of pestilences, can fail to welcome her powerful aid to his cause.

† The most successful treatment on record of any zymotic disease of a serious character, is purely hygienic. It is the case of eighty-two people sick with typhus of a grave character—twelve of them already insensible—who were landed in 1837, on the New Jersey shore, from a wreck, and laid in canvas shanties, exposed to the weather, and drenched with rain, but not otherwise treated, except with cordials—*and all recovered.* No hospital records can show such a result. (*Sickness and Mortality on Emigrant Ships. Cong. Report.*) It is not to be supposed that a similar course would deprive an epidemic of diphtheria of all its malignancy—but to what extent it would diminish it, we can never know, till a much more thorough hygiene than is common, has been fairly tried.

is far advanced that the opportunity for medical applications has passed. Diphtheria is clearly not a self-limited disease; and in order to make treatment effectual, it must be begun at an early period. And, as it is evident that from ignorance or neglect on the part of patients and their friends, many are not seen by a physician till the disease has continued for several days, it is proper, in judging of the value of the medical treatment, that all such cases should be left out of the consideration. Such a condition applies equally, of course, to all varieties of medical treatment. But in the case of the disease we are now examining, it has already been observed that in the essentials there is little variety in the methods which have been adopted for its treatment; and therefore the question is not at present one of comparison between this treatment and any other. It is only a question whether, when one patient in ten, eight or five, dies under a certain mode of treatment, that treatment can be judicious. I repeat, that, to judge it fairly, we must diminish the number of fatal cases, by a few exceedingly malignant and many that doubtless remained without treatment until the stage had passed in which any impression could be made on the disease.—*Berkshire Medical Journal.*

TREATMENT OF DIPHTHERIA—LOCAL.

BY J. KNEELAND, M. D.

In regard to the local treatment in diphtheria, after consulting physicians who have seen much of the disease in the city of Syracuse and the village of Geddes, and adding their experience to my own, candor compels me to confess, that the so much used and commended "nitrate of silver often fails to remove the false membrane, and change the abnormal action of the secreting surface to a condition of health." In mild cases it is needless, in severe ones too often useless. However, in those terrible sequences of diphtheria, secondary membranous croup, it must be used often, if at all, at least once in three or four hours, and of a strength not less than from forty to sixty grains to the ounce of water, and applied with a curved probang.

To prevent the secretion from forming again after removal (as it often does), I would use tannin and dried alum, applied with a soft linen rag or on the moistened finger to parts with-

in reach, and blown into the throat through an ivory or glass tube, or two or three quills introduced into each other, answer a good purpose; no harm follows inhaling this powder, as a short paroxysm of cough clears all out again.

I apply externally over the throat salt pork, moistened with turpentine, and quickened with pulv. sem. sinapis, or capsicum, if need be. For a gargle, the following is my preference, after trying a variety: R. Hyd. Chlor. Ammoniæ ʒ ij.; Sodæ Muriat. ʒ iv.; Pulv. Capsici ʒ ij.; Vinegar ℥ ij. Add one and a half pints hot water; cool, and use it freely. If any is swallowed, no harm follows. In children too young to gargle, apply with a soft linen rag. In cases where the secretion from the nose, throat, or ear, is offensive, I have used the following: B. Chloride of Soda ʒ ij.; Chlorate of Potash ʒ i.; water, four ounces: with good effects. I tried mur. tinct. ferri as a local application to the throat, and believe it is not as good as nit. argenti.

I have used in a few mild cases, as an internal remedy, a solution of vinegar and muriate of soda in water, covered and quickened by the addition of a little capsicum or piperine, and I must acknowledge that these cases did as well as any that I treated. If I could not get the *chlorine mixture* before described, I should feel able to find in the farmer's pantry, a mixture neither destitute of chlorine nor remedial virtue. The chlorine mixture is usually so well borne by the stomach, so compatible with the use of sustaining food, and, by many years' experience, I have found it so well adapted to the treatment of that congener of diphtheria, scarlatina, that I used in most of my cases from the first; adding a little morphine, or paregoric, if required, and increasing the proportion of acid, or adding the iron if my patient tended downwards, and the stomach would bear this addition.

From what I can gather from the recorded or narrated experience of others, and my own knowledge of the disease as gleaned from a limited number of cases, I have concluded that diphtheria is a blood-changing disease, and that lesion of function in the spinal nerves occurs early in grave cases; that we must not wait for sinking, but if possible anticipate and prevent it; and finally, that to *oxygenate the blood*, and rouse and vitalize the nervous system, are the leading indications to be sought.—*Am. Med. Times.*

TREATMENT OF DIPHTHERIA.

BY A. JACOBI, M. D.

The majority of zymotic diseases require little or no medical treatment at all, especially those running their course in a distinctly typical manner. As to diphtheria, we have even made direct experiments, showing that mild cases will get well without treatment. But we think it more dangerous in diphtheria, than in other zymotic diseases, to abstain from treatment altogether, for three reasons :—Diphtheria is not a typical malady, and has a great tendency to return ; it is more of an adynamic character than any other ; and, finally, by the thick and extensive exudations of the pharynx and on the adjoining parts, it is apt to produce serious troubles, by mechanical encumbrances to deglutition and respiration. The local treatment consists of cauterization of the membranes and surrounding parts with the solid nitrate of silver, or with strong or mild solutions of the same salt in water (ʒ ss-j. : ℥ j.) ; of gargles, consisting of solutions of (or applying in substance) astringents, such as tannic acid, alum, sulphate of zinc, or claret wine ; in gargling with, or applying, such medical agents as are known to have some effect on the constitution and tissue of the pseudo-membranes, as chloride of potassium, chlorates of potassa and soda, diluted or concentrated nitric or muriatic acids, liquor of sesquichloride of iron, etc. Astringents will prevent maceration, render the exudation dry and hard, and alter the consistency of the surrounding hyperæmic and œdematous tissue. It will thus prevent, sometimes, the extension of pseudo-membranes to the neighborhood of the parts already affected, and in some cases may accelerate the expulsion of the membrane as a whole. We have thus seen the best effects from tannic acid, either applied directly to the parts by means of a curved whalebone probang, or dissolved in water as a gargle (ʒ ss-ii. : ℥ i). Of the tinct. sesquichlor. iron we have seen no particular effect. Cauterizations with nitrate of silver we have found to be generally of very little use when applied to the pharynx. Its effect is superficial only ; it will form a scurf, but will destroy nothing. Destruction of the parts cannot be effected except by forcing the caustic into and below the membrane ;

this can seldom be done in the pharynx of children, and for this reason cauterization is unavailing at this point, but will prove beneficial, we believe, by confining the process of exudation to its original locality. In cutaneous diphtheria cauterization may be exercised to its full extent, but as these cases are generally attended with extreme prostration, the general treatment will prove both more necessary and successful. If cauterization is to be resorted to, we generally use, and with good effect, more or less concentrated muriatic, or acetic, or nitro-muriatic acid. Where, however, cauterizations are made, great caution is necessary not to mistake afterwards the result of the caustic for pseudo-membrane. The remark is particularly applicable where nitrate of silver has been used.—*American Medical Times.*

ON ICE-WATER IN THE TREATMENT OF CROUP.

BY J. A. McFARLAND, M. D., TIFFIN.

It will scarcely be necessary to offer any apology, unless on account of tardiness, for inviting the attention of the profession to the use of *Ice-water*, in the treatment of croup.

Fifteen years ago I prepared an article for one of the medical journals on this subject; but seeing, about that time, in one of the newspapers, something very much like "my thunder," I concluded to remain silent. Believing, however, that very few regular practitioners have made any trials of this remedy, I propose, very briefly, to return to the subject, with the hope of, at least, eliciting some profitable discussion.

It was in January, 1843, more than seventeen years since, that I first applied cold applications, in the management of croup. During the treatment of a most violent attack, after the ordinary means had been tried without any apparent benefit, and when fairly puzzled what next to do for the relief of the little sufferer, it occurred to my mind, on placing my hand over the child's throat, that the leading indication was to subdue the burning heat, the result of local inflammatory action; and that nothing could be better for that purpose than ice-water applied directly over the inflamed parts. This was immedi-

ately done; and in ten or fifteen minutes a most wonderful improvement was evident. Never have I witnessed, in my whole professional experience, a more rapid and delightful change, than in this my first trial of ice-water in croup.

It was but natural that so gratifying a result would lead to further trials. Up to this time, in my own practice, they must have been repeated at least two hundred times. To this may be added, that no time was lost in communicating the history of my first case to my professional brethren of this city, all of whom, I believe, are in the habit of resorting, very confidently, to the use of cold water in all croupal affections. For my own part, I can truly say, if I were confined to a single article in the treatment of tracheitis, I would prefer cold water to all others. By its judicious employment, commencing before the formation of false membrane, there will be little or no danger of a fatal termination. Even when diphtheritic formations have commenced, there is no surer way of arresting their progress.

It is neither necessary nor proper, however, to confine ourselves exclusively to a single remedy. Whilst, in severe cases, our reliance is mainly on ice-water, recourse is had, as occasion requires, to ipecac, and alum, as emetics; enemata, castor oil, or calomel to evacuate the bowels; the warm bath, anodynes, and solution of nitras argenti.

I must here enter my solemn protest against the frequent repetition of antimonial emetics. They have doubtless been the cause of many a death among young children. Even a single emetic of tartarized antimony, or its long continued use as a nauseant, in delicate infants, with an irritable condition of the alimentary canal, can never be regarded as safe or judicious; and it may be laid down as a good rule to eschew and discourage all such practice. Ipecac, and alum, either singly or combined, will be found equally efficacious, and infinitely safer.

In applying the remedy under consideration, we use folds of muslin or linen, large enough to cover the whole throat and upper part of the sternum. The wet cloth, wrung just enough to prevent dripping, ought to be well covered with several thicknesses of dry flannel, and then both should be secured with a small handkerchief.

When we wish to have the applications very cold, it is best to have two wet cloths, using them alternately, as fast as they become warm. This course should be continued till the disease is thoroughly subdued. When treatment is commenced early,

a few hours may suffice; in neglected cases, several days are sometimes required.

In some cases, water fresh from the well or cistern will be sufficiently cold; but as a general rule, the preference should be given to ice-water.—*Columbus Review.*

ON THE CLIMATE OF CALIFORNIA

IN ITS RELATION TO THE TREATMENT OF PULMONARY CONSUMPTION.

BY JAMES BLAKE, M. D., F. R. C. S.

In my previous article on the subject of phthisis, I have shown that both an improved pathology and the result of experience derived from a vast mass of facts, point to the open air plan of treating the disease as that most likely to cure our patients. So strong is my faith derived from my own experience, in its efficacy for curing the disease, that I believe fully seventy-five per cent. of cases taken in hand in the second stage of the disease, can not only be temporarily relieved, but permanently cured, by a rationally conducted open air treatment, and that at least fifty per cent. of the cases that have advanced to the third stage of the disease, or in which cavities have already begun to form, can be cured, and in nearly all of them can life be prolonged by the same treatment.* The open air treatment, however, like every other plan of treatment for the cure of disease, has, in order to be successful, to be carried out in a rational manner. There are many obstacles to be overcome, many modifications to be made in it, in order to render it available for the different classes of our consumptive patients. As civilization has advanced, we have departed more and more from the nomadic life of our forefathers, and

*This estimate, as to the curability of the disease, is far below that which my own limited experience has furnished, but the cases in which the treatment has been carried out, have been too few to justify me in drawing any definite conclusions as to the proportion of cases that can be cured. I would merely state that, in three cases with cavities in the lungs, (in one case on each side,) in which the treatment has been pretty fairly carried out, one case is cured and has remained free from cough during the last two years; another case, in which there were cavities in each lung, now reports himself well, has hardly any cough for the last twelvemonth, and has regained his usual weight; and a third case, a most unpromising one, is much improved, having gained 10 pounds in weight during the last summer, and the cavity having ceased to suppurate.

our social organization as at present constituted, may seem to many to present insurmountable difficulties to carrying out the treatment, particularly when it has to be applied to our female patients. I trust, however, to show that these obstacles can be overcome with much less difficulty than would at first sight be supposed by those accustomed to live only amidst the artificial luxuries and comforts of our in-door glass-window hot-stove civilization, particularly when it can be demonstrated to our consumptive patients that these very luxuries and comforts are dragging them to an early grave, to which they can but serve to smooth the path. Could we have a model climate, that is one in which the temperature should never fall below 45°, and in which it never rained, the best advice we could give our patients would be to live entirely in the open air, where every breath they would inspire would be taken in, fresh and uncontaminated, from the aereal ocean. Under these conditions, and under these conditions only, can the maximum of that health-restoring influence which is desirable fron fresh air, be obtained. But as climates were not specially made for the treatment of consumptive patients, we must do the best we can with them as they are. Even in California, although our climate affords as many facilities for carrying out the open air plan of treatment as any in the world, yet it necessitates us to place our patients occasionally in positions where they are obliged to breathe portions of the same air a second time. Again, a large proportion of our patients are so situated as regards their business, or their means of obtaining a livelihood, that they are unable to completely separate themselves from their affairs, to lead a nomadic life, even during the time that the season would permit of their so doing. Supposing, however, that our patient is in a position to follow our advice fully, and presents himself to us in the second or third stage of the disease, before too large a portion of the lung is completely disorganized, or the strength too far exhausted. My advice to him is, between the months of May and October, immediately to assume the nomadic life; to get on horseback with a pack mule and with a companion that can hunt, break away for some part of the coast range, where he can command an elevation of two or three thousand feet, and where game is plenty. It signifies little to what part of the range he directs his steps, or he may choose the Sierra, if more convenient. I consider, however, the coast range preferable, for many reasons. The climate there is more agreeable; the heat of the day is not so great, nor are the nights so cold early and late in the summer

as on the higher hills of the Sierra. Game is much more abundant on the coast range than on the Sierra, and a good and wholesome nourishment can thus be more readily obtained. Another advantage that the coast range has over the Sierra is, that our patients, when once they are well up in the coast range, have not such facilities for rushing back to the "*flesh-pots of Egypt*" as they have in the Sierra, with most parts of which there is daily stage communications with the valleys. It is a great advantage for them to be obliged to stay out, but it requires much strength of mind, or some pretty steep barriers, to prevent a man who has a family from seizing the first opportunity afforded by a partial return of health, for revisiting his home, or for a man who is in business, form satisfying himself as to the way in which his affairs are being carried on. I have seen much mischief done by these too frequent visits at home, particularly in the case of married men, who the more they are away from their wives the better. I consider, that, during the summer months, our patients in this latitude will find the best climate at an elevation of from two to four thousand feet above the level of the sea. The lower elevation is the best in early summer and autumn, and can be borne by patients whose lungs are considerably diseased, whilst the higher elevation will suit those in whom the third stage has not made much progress. There is an opinion generally prevalent amongst the members of the profession, that phthisical patients do better at lower levels, on account of the air not being so much rarified, and therefore requiring a less respiratory effort to obtain the same amount of oxygen. My experience is entirely opposed to this idea of high elevations not suiting phthisical patients, as is also that of many other physicians who have practiced in mountainous regions. Except in cases in which a considerable portion of both lungs is diseased, I believe that the additional expansion required to obtain the necessary supply of oxygen, may even be beneficial. But we have a far more important reason for sending our patients to the mountains than that afforded by any problematical advantage to be gained by this additional expansion of the lung, and this is, in the decided superiority of the mountain air over that of the valleys, for invigorating the digestive organs. There can be no comparison between the two climates in this respect, and as phthisis is to be attacked and cured through these organs, a mountain climate is always to be preferred. There cannot be a more striking instance of the impunity, as regards the respiratory organs, with which great elevations

can be borne by phthisical patients, than is furnished by Dr. Smith, of Lima, in an article "On the Climate of Peru," in the 18th vol. of the *British and Foreign Medico-Chirurgical Review*. After stating the symptoms of the second stage of phthisis, as generally seen in that country, Dr. Smith observes: "No Lima junta of experienced native, or well acclimated European physicians, would for a moment hesitate to order to the Sierra a patient in the condition I have just described. They would deem this transfer of climate, as the only security for the patient. Under such conditions I have witnessed the application of all approved European remedies of every school fully tried, where the phthisical patient was, for one reason or another, destined to run his course on the coast and in the capital, under the eye of able assistants, but always with the same fatal termination."

In answer to the query as to the best locality for the treatment of phthisis, he observes: "On the Pacific slope of the Cordillera, and by the Pasco road from Lima, Haraway and Canta are considered the best localities, but Canta, above all, on this route, is allowed to be the most desirable, being about twenty-five leagues from Lima, and at an elevation of 10,000 feet. Again by the Zarma road from Lima, Matucana and San Mateo are favorable climates—the former, according to McLean, is 8,026, and the latter 10,984 feet high." After this, it is quite useless for us to prevent our patients seeking a mountain climate, for fear of rarified air. In our latitude a much less elevation will suffice to ensure a good digestive climate than in a country so near the Equator as is Peru. The great desideratum is, to find a climate where the digestive organs can recuperate, and the lungs, if not very far gone, can afford to go and seek it at elevations of 10,000 feet, if necessary. When phthisis was looked upon simply as a disease of the lungs, and its pathology was sought solely in the changes taking place in these organs, it is not surprising that physicians should hesitate to send their patients to elevations, where the diseased organ should have more work to perform. But now that more correct views prevail as to the cause of the disease, there can be no longer any excuse for us preventing our patients from seeking the best localities for their recovery, by migrating to the mountains.

There is another advantage possessed by our mountain climates, as compared with that of the valleys, which is, that during the warmer summer months the diurnal variations are less than in the valleys. When residing at Iowa Hill, at an

elevation of about 4,000 feet, I found, on comparing my meteorological register with that kept by Dr. Hatch, in Sacramento, that when the thermometer in the valley would fall 16° to 20° between sunset and sunrise, it would only fall 10° to 14° at Iowa Hill; nor would the temperature reach so high a point during the day—the daily range of temperature being 10° to 12° less at the higher station than at the lower. Another great advantage that our patients have by residing in the mountains during the summer months is, that they avoid malaria. The extraordinary opinion that once prevailed, as to the antagonism between malarious disease and phthisis, is now fortunately exploded. Amongst the vast mass of medical fallacies that have been at different times advanced, it would be difficult to find one with less foundation. According to my experience, malaria is extremely prejudicial to phthisical patients. They are very liable to be affected by it, and its effects are amongst the most unfortunate complications that can interfere with the cure. The effects are seldom seen in the form of an intermittent. They generally assume some irregular type, so that it is frequently difficult to refer them to their true cause.

I trust these facts and considerations will suffice to convince the profession that a mountain climate, at least such as we possess in the coast range and the Sierra, affords the most favorable localities in which a phthisical patient can pass the summer and autumn months. Cases sometimes present themselves in which elevations above one or two thousand feet cannot be borne without oppression; they are, however, rare, and are, I think, depending on some asthmatic affection. During the winter our patients, where practicable, may derive benefit from a trip to the Sandwich Islands, provided they do not suffer too much from sea-sickness.

The months of December and January can be thus well spent, and these months are undoubtedly the worst months in the year for consumptive patients in California. If they make the voyage, let them not remain on the Islands; the benefit is to be derived from the voyage, not from a residence on the Islands, where the moist, warm atmosphere is not calculated to improve the digestive organs. It is by a dry, bracing atmosphere that these are usually invigorated, although a sea-voyage, in an atmosphere almost saturated with humidity, often exerts a favorable influence in restoring the digestive functions. It is only on the sea, however, or on the coast, that such an atmosphere can be borne with impunity; as soon as

we get inland, humidity is undoubtedly prejudicial, so that the benefit to be derived from a sea-voyage must be sought for in some other element of the sea-air, besides its moisture. Should it not be desirable, however, for our patients to leave the State, Los Angelos, Santa Cruz, or San Diego, are good localities for passing the winter, or even the lower hills of the Sierra or coast range. At an elevation of a few hundred feet, the sea of fog that frequently fills the valleys for days together during the months of December and January, seldom rises, and our patients can thus secure many days of bright sunshine, which in the valleys would have to be passed in a cold, bone-searching fog. During the months of February, March and April, San Francisco, or the inland valleys, afford about as good localities for our patients as any in the State; there is no fog, no dust, no malaria, and the climate is more equable than that of the mountains at the same season.—*Pacific Med. and Sur. Journal.*

PROCEEDINGS OF SOCIETIES.

ABSTRACT OF THE PROCEEDINGS OF THE ESCULAPIAN SOCIETY,

AT THE MEETING HELD IN PARIS, ILL., JAN. 1ST AND 2ND, 1861.

(*Reported by D. W. Stormont, M. D., Secretary.*)

The Society met at the office of Dr. Davis in Paris, Jan. 1st, and was called to order by the President, Dr. Chambers, at 10 o'clock A. M. The minutes of the last meeting were read and approved.

Dr. Geo. Ringland was elected a member of the Society.

Dr. Herrick, the Treasurer, submitted his report, which was received.

Dr. Stormont read a paper on the use of anhydrous sulphate of zinc, as a caustic, in the treatment of malignant and semi-malignant ulcers;—claiming for it escharotic properties, equal to arsenious acid, or chloride of zinc, but free from all the

objections which apply to these; it being perfectly safe, easily managed, and its application attended with far less pain than other powerful escharotic known.

Dr. York, Chairman of the Committee on Indigenous Botany, read a report on "The Hop," as an anodyne, tonic and antiperiodic; possessing great virtues in the latter stage of Phthisis; in spinal irritation; in stomatitis materna; in intermittent fever, especially its chronic form; and in many cases of gastralgia;—is a most valuable antihectic; hence useful in all diseases attennded with hectic fever.

Dr. Chambers read a paper on Diphtheria, the main points of which were, that it is a blood disease, produced by a specific poison, which manifests itself locally in the throat, as the virus of small pox does upon the skin, with a tendency to spread upon the mucous surfaces;—it is a disease of debility and it is not contagious. Treatment—Internally, Chlorate Potassa and large doses of Sulph. Quinine. As a local application, nitrate silver, 60 gr. to the ounce of water. If the air passages are involved, the atmosphere in the room should be kept saturated with the vapor of boiling water.

Dr. Davis coincided generally with the essayist, preferred tinct. iodine for local application, believed it would stop the spread of the disease from the throat to contiguous parts.

Dr. Stormont had seen but little of the disease, believed it to be a blood disease, asthenic in its tendencies, demanding a supporting treatment. Some experiments he had read, favored the opinion that the specific virus, acting upon and through the blood, tends to induce an abnormal alkalinity of all the secretions, pointing to the use of acid tonics, such as nitro-muriatic acid, or sulphuric acid, or *muriated tinct. iron*, with quinine, nourishment and stimulants.

Dr. York said the danger lay not in the diseased condition of the blood, but from the extension of the disease downwards into the windpipe, producing croupy symptoms. He relied upon tinct. iodine to stop this extension. It is not contagious. Treat according to the indications present. Some cases are

sthenic, and others asthenic. Or the same case may be sthenic to-day, and asthenic to-morrow. Hence, in one stage mercurials and sedatives may be demanded; in another stage tonics and stimulants are the remedies. Emetics should be used cautiously; of these prefers alum, one teaspoonful every twenty minutes until vomiting. Avoid the too frequent application of caustics to the throat, it produces mischievous irritation; not oftener than once every day or every other day. When the disease has extended into the larynx and trachea, stop the local application of tinct. iodine, or nit. silver. It is then a useless annoyance. A vast majority of the cases, in which there is a complete aphonia, die. Know of only four recoveries from this condition. Here give quinine very freely, with Dover's powders.

Dr. Tenbrook—This disease is asthenic in character. Treatment—First order a mild aperient, then follow with stimulants and tonics. As a local application to the throat, greatly prefer the solid nit. silver; if used in time it will prevent the extension of the disease into the windpipe. It should be used not oftener than once in 24 or 48 hours. In the interval, use a gargle of common salt, sweetened. In the worst cases I have met with, aphonia and general venous congestion were present, when first seen, without much or any disease in the throat. Such generally die. Always have the patient washed all over daily with warm salt and water, and rubbed with a dry towel until the skin glows. Am not decided as to its being contagious.

Dr. Herrick reported a case of compound fracture of the leg.

The Business Committee submitted a report, which, after amendment, was adopted as follows, viz:

Resolved, That a subject shall be selected at each meeting, for general discussion at the subsequent meeting.

Resolved, That the question at the next meeting shall be, "Is the character of diseases, at this time, asthenic?"

Dr. Chambers was appointed to open the discussion.

The following Standing Committees were appointed for the present year, viz:

On Practical Medicine.

Drs. L. L. Todd, D. W. Stormont, D. O. McCord.

On Midwifery.

Drs. H. R. Payne, C. Johnson, J. M. Steele.

On Surgery.

Drs. O. Q. Herrick, H. W. Davis, W. H. Chambers.

On Epidemics.

Drs. J. Van Dyke, C. Duncan, C. Gorham.

On Indigenous Botany.

Drs. S. York, J. Tenbrook, F. R. Payne.

The following were the officers elected for the ensuing year, viz:

Dr. J. Tenbrook, President.
" J. Van Dyke, Vice-President.
" D. W. Stormont, Secretary.
" J. M. Steele, Treasurer.

Drs. York, Chambers, Todd, H. R. Payne, and Pearman, Censors.

Dr. Van Dyke was appointed to deliver the next public address.

The Society adjourned to meet in Charleston, on the last Wednesday in May.

THE NEW SYDENHAM SOCIETY.

This is an English Society, instituted for the purpose of publishing standard works on Medical and Surgical subjects, so that they may be distributed among the largest possible number of the profession. The subscription is one guinea a year, ($5.25 U. S. currency), which entitles a member to all the publications for the current year. The works are not ob-

tainable in our book-stores, or in any way, except by joining the Society. The following list indicates their character:

The publications for 1859:

Vol. I.—Diday "On Syphilis in Infants and Children at the Breast." Translated by Dr. Whitley.

Vol. II.—Gooch "On the most important Diseases of Women and Children," with other Papers. Woodcuts. Prefatory Essay by Dr. Ferguson.

Vol. III.—Memoirs on Diphtheria. From various French sources. Selected and translated by Dr. Semple. With a Bibliographical Appendix by Mr. Chatto.

Vol. IV comprises the two works of Professor Schroeder Van Der Kolk, (1st) "On the Spinal Cord," and (2nd) "On the Medulla Oblongata," and "On the Proximate Cause and Rational Treatment of Epilepsy." Translated by Dr. W. D. Moore, of Dublin. With numerous Lithographs.

Vol. V contains translations of the following Monographs:

1st. Kussmaul and Tenner's "Experimental Researches on the Effects of Loss of Blood in inducing Convulsions." Translated by Dr. Bronner, of Bradford.

2nd. Wagner "On the Resection of Bones and Joints." Translated by Mr. T. Holmes. Numerous Woodcuts.

3rd. Professor Graefe's Three Papers on Glaucoma, Iridectomy, &c., &c. Translated by Mr. T. Windsor, of Manchester.

The publications for 1860:

Vol. VI—Clinical Memoirs on Abdominal Tumors and Intumesence. By Dr. Bright. Collected and reprinted from the Guy's Hospital Reports. Edited by Dr. Barlow. With numerous Woodcuts.

Vol. VII.—A Year-Book for 1859. The Year-book is designed to form a Register in condensed abstract of all Important Communications, whether British or Foreign, in Medicine, Surgery, and their allied Sciences during the year. It will consist of five sections:—1st. Anatomy and Physiology. Edited by Dr. Harley. 2nd. Medicine. Edited by Dr. Hand-

field Jones. 3rd. Surgery. Edited by Mr. Hulke. 4th. Diseases of Women and Children. Edited by Dr. Graily Hewitt. And 5th. Forensic Medicine and Toxicology. Edited by Dr. Odling.

Vol. VIII.—Frerich's Clinical Account of Diseases of the Liver. Vol. 1. With Woodcuts. Translated by Dr. Murchison.

Vol. IX.—Vogel and Neubauer on the Examination of the Urine. A Manual intended for the assistance of the practical physician. With Woodcuts and Plates.

Vol. X.—The First Fasciculus of an Atlas of Illustrations of Diseases of the Skin, copied from those of Hebra, and of Life-size.

The works for 1860, and probably those for 1859, may yet be had by subscribing for those years. The subscription for 1861 is now due and should be paid in advance, in order to secure the publications of the year. This pre-payment is essential to the efficient and prompt action of the Society in publishing the books, and relieves from embarrassing uncertainty. As it is a mutual benefit association, it is hoped that members of the profession will take interest enough in it, to mention it to their friends. The expenses of exchange and carriage are to be divided, among the local members. The circulars of the Society may be obtained, and specimens of books seen, at the office of Dr. V. L. Hurlbut, 122 Randolph street; or at the office of the undersigned, who is authorized to forward subscriptions,

CHARLES G. SMITH, M. D.,

95 *Washington Street, Chicago.*

CHICAGO ACADEMY OF MEDICAL SCIENCES.

CHICAGO, *February* 1*st*, 1861.

The regular monthly meeting of the Academy was held at its rooms this evening, the President, Dr. Bloodgood, in the chair. After the reading of the minutes of the last meeting, the President appointed the following committee in accordance with Art. VI, Sec. II (amended) of the Constitution:

Anatomy and Physiology—Dr. E. Powell.
Theory and Practice—Dr. A. Fisher.
Obstetrics and Diseases of Women—Dr. O. Smith.
Chemistry and Materia Medica—Dr. J. H. Rauch.
Public Health—Prof. N. S. Davis, M. D.
Surgery—Prof. J. W. Freer, M. D.
Pathology and Histology—Prof. J. H. Hollister, M. D.

Dr. R. C. Hamill read an interesting report of a case of inversio uteri. The labor was conducted with little difficulty, although there was a slight antero-posterior contraction of the pelvis. During the last couple of hours previous to the delivery of the child, five or six drops of chloroform were administered from time to time, on account of nervous excitement. Ten or fifteen minutes after delivery, the uterus being well contracted, a violent pain seized the patient, when the placenta was suddenly expelled. Alarming prostration and flooding followed. On examination, the uterus was found inverted. Fortunately, after several attempts, the organ was replaced. Although there were subsequent symptoms of metritis, they were relieved by quinine, veratrum viride and hyoscyamus, and the patient soon recovered perfect health. It should be

observed that no force was applied to the cord in the delivery of the placenta.

Dr. H. N. Hurlbut reported orally a case in which he was recently called to a patient, married, and about 40 years of age, suffering from violent hemorrhage and prostration. On examination, the uterus was found inverted and presenting evident post partum appearances. The organ was readily reduced and the patient recovered without unfavorable symptoms. No child or placenta was any where observed, and no satisfactory account of the case could be obtained from the family.

Dr. Bevan related the case of a woman, aged about 35 years, in the 5th or 6th month of pregnancy, who stated that after injury in a quarrel, followed by violent exercise, the usual motions of the fœtus suddenly ceased. No fœtal pulsations could be heard and no motions could be induced either by pressure or by the application of cold to the abdomen. In three weeks the woman was delivered of a fœtus in a state of decomposition. No blood passed from the uterus and vagina, except in the form of dark, decomposed clots.

The subject of Pneumonia, assigned at the last meeting, was discussed at some length by Drs. O. Smith, Johnson, Heydock, Fisher, Davis, Wickersham, Bevan, Hamill, Andrews, McAllister and Bloodgood.

Subject of discussion at the next meeting—The Diagnosis of Cerebral Diseases of Infancy.

Adjourned.

E. L. HOLMES, Secretary.

EDITORIAL.

TO THE OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION.

Immediately after the last meeting at New Haven, having noticed that my name was placed upon the Committee on "Prize Essays," I addressed a letter to the President of the Association, informing him that it was uncertain whether I should be able to serve and requesting my name to be withdrawn. As no notice seems, from the volume of transactions, to have been taken of the request, I take this early opportunity of calling your attention to the subject, in order that proper arrangements to prevent mistakes may be made in time.

Respectfully,

D. BRAINARD.

Obituary—Dr. John W. Francis.—In the decease of Dr. John W. Francis—he died at 3 A. M. yesterday, at his residence in East Sixteenth street—New York has lost a marked and shining celebrity. His services to the profession he passionately loved and adorned are at an end; his genial face has faded from mortal view; his eloquence of anecdote, his rare and grand speculations, his noble and hearty benevolence, are no longer living and loved realities. His death was not expected. Though nearly 72 years old, he seemed hale and hearty. Afflicted with carbuncles on the back, he submitted last week to an operation which he thought very much relieved him. The draft on his physical energies proved too great. Suddenly, and without pain, he passed away, retaining his senses to the last.

John Wakeman Francis was born in this city, on the 17th of November, 1789. His father came from Germany, his mother was a Philadelphian, of Swiss descent. At an early age, John was placed in the printing office of George Long, in this city. His ambition soared above type-setting, and he

early showed a fondness for books, a love for scholastic pursuits. Employing his leisure time in study, he proved himself an apt as well as vigilant scholar. His genius was recognized, his industry rewarded. Judicious friends came to the aid of the young and striving student, and in 1807 he was enroled to enter the junior class of Columbia College, at the same time commencing the study of medicine under the celebrated Dr. Hosack. In 1809 he graduated, and at once gave his undivided attention to his medical studies. In 1810, in conjunction with Dr. Hosack, he commenced the publication of the "American Medical and Philosophical Register," both acting jointly as editors. In 1811 he received his degree of M. D. from the New York College of Physicians and Surgeons—his was among the first degrees granted by this College—and the same year he was admitted to partnership with Dr. Hosack, a partnership which continued through nine years. In 1813 he was appointed to the chair of Materia Medica in his *alma mater.—N. Y. Times.*

Dr. Francis occupied successively the chairs of Institutes of Medicine and of Medical Jurisprudence in the College of Physicians in New York.

At the organization of Rutger's Medical College he was appointed Professor of Obstetrics and Forensic Medicine; but this school, notwithstanding the labors of such colleagues as Mott, Hosack and Mitchell, did not succeed, and was closed after four years. His medical writings are numerous and cover a varied field. Perhaps the most successful are his biographical sketches. His edition of Denman's Midwifery was at the time of its publication a valuable addition to the medical literature of this country.

Dr. Francis was a man of genius and honor. His genius linked itself with whatever is great, good or humane. Art, literature, science, found in him an eloquent advocate. But more than his genial social qualities does his sense of honor deserve to be signalized. It is hoped that it may not be deemed as encroaching too much upon his private life to mention that a large part of the proceeds of his labor for many years was devoted to the discharge of obligations in which he became involved through the fault or misfortunes of

others, but which he regarded as sacred until they were entirely liquidated.

At the present time, when there are so many to be found who consider it beneath their dignity to pay grocer's and mechanic's bills, but who mourn over the low state of the profession and complain that no respect is shown them by the public, does not this trait deserve especial commendation ?

He was universally respected, beloved by those who had the advantage of his acquaintance of proving him. He honored and never disparaged his noble profession. Dr. Francis was a man of warm religious feelings and convictions, which found genial exercise in the forms of worship of the Episcopal Church, of which he was a member. He was consoled in his last illness by the visits of the Rev. Dr. Hawks, of whose Church he was a member.

Ethics.—One of "ours" wants to know whether it is in accordance with the "code," for prominent members of the American Medical Association to visit patients for *fifty* cents, when the fee bill adopted by their own local society fixes the rate at from $1.50 to $2.00 each. He wants to know whether an *honorarium* of *twenty-five cents*, for prescription and advice at the office, is eminently calculated to "elevate the profession." We must demur to answering under the "Hippocratic oath." The probable reply is, that the fee is *twenty-five* and *fifty cents* to Irishmen and Scandinavians, and the Society fee bill for "the rest of mankind."

We entreat our correspondent to withdraw his harsh expressions, so that we may publish his otherwise exceedingly pertinent and suggestive communication.

Matters in Detroit.—It is a melancholy comment upon the *status* of the profession in our sister city, that the larger proportion of its medical population are applicants for the position of Surgeon to the Marine Hospital in the upper por-

tion of that village, now filled by Prof. Z. Pitcher, of the University of Michigan. Our sympathies are excited especially as we understand that the main chances seem to be divided between Prof. A. B. Palmer, a colleague of Dr. Pitcher, and "Dr." Rudolph, a prominent homœopathic practitioner in the "City of the Straits."

Alcohol and Tuberculosis.—Dr. Davis, in the *Transactions*, "invites the critical attention of the Section on Practical Medicine" to the following conclusions:

1st. That the development of tubercular diseases is facilitated by all those agents and influences, whether climatic or hygienic, which directly or indirectly impair or retard the metamorphosis of the organized structures, and the efficiency of the excretory functions.

2d. That observations and carefully devised experiments, both show that the presence of alcohol in the human system, notwithstanding its temporary exhilaration of the cerebral functions, positively retards both metamorphosis and elimination.

3d. That neither the action of alcoholic stimulants on the functions of the human body, nor the actual results of experience, furnish any evidence that these stimulants are capable of either preventing or retarding the development of tubercular phthisis.

These conclusions, being wholly in opposition to generally received opinions on this important subject, certainly demand the attention of practical physicians. Although disposed to disagree with the inferences derived by the learned author from observation of the cases given in support of his present views, we deem the subject one of such general and pervading interest, if not uncertainty, as to warrant the largest latitude of debate and opinion. What is the experience of our correspondents?

—The Medical Profession, beyond all others, has remarkably deserved the character of general and extensive knowledge. —*Blackstone, Introduction to Commentaries.*

A Consummation Devoutly to be Wished.—The New York Academy of Medicine has adopted a resolution discountenancing the publication of its debates and doings in the secular press—a proceeding whereby sundry of the dwarfs were succeeding in attracting public notice by climbing upon the shoulders of some of the real giants of the profession. Let the good work continue.

Prof. J. N. McDowell, in the "Transactions of the American Medical Association," observes:

Among the improvements in modern surgery, is Dr. Brainard's mode of causing bones to unite where there has been a want of ossific matter, or an artificial joint formed as a result of a fractured bone.

The mode suggested by Dr. Physick has often, in the hands of the best surgeons proved unsuccessful, viz: Passing a seton through the fracture, but from the experiments of Dr. Brainard on his patients, I am satisfied his is the preferable mode in such cases, although I have not had an opportunity of testing it, and therefore cannot speak from experience. It consists in passing a boring or cutting instrument into the joint, and so exciting the bone as to cause bony matter to be poured out at the point desired. In several cases of the kind, I have been compelled to cut down upon the bone and turn out the ends of the bone and saw them off, an operation which has never failed with me.

I would refer you to his valuable treatise on the subject as published in the "Transactions of the American Medical Association."

Another important improvement has been suggested by Dr. Brainard, and a great number of experiments have been given to prove the position that a poisoned wound can be cured, or the poison prevented from extending by injecting the tincture of iodine around the wound in such a quantity as to neutralize the poison. For accurate information, and the experiments on that subject, I would refer you to his essay, as published. I have not tried it, but believe it to be a good method. At all events, if I were bitten by a rattlesnake or a copperhead, and had the remedies at hand, I would try it and then *get drunk*, if I could; the latter remedy I have never known to fail. It is an Indian remedy, and has been so often tested by them, and I have tested it myself in so many cases, that I believe it

to be a safe remedy; but in my own case, I would open the wound, decompose the poison by an alkali applied to the part, try Brainard's remedy, and then *get drunk*.

The application of the alkali, although common, seems scarcely in accordance with sound principles. From the results of Fontana's 6000 experiments, it is evident that alkalies are not antidotal to the venom of serpents. Besides this, it would appear that by their local effect in dissolving the albuminous tissues, they rather tend to promote absorption than to circumscribe the affected part, and thus prevent ready absorption of the virus.

Perspicuity in Medical Writing.—In looking over the large pile of our exchanges, we have been forcibly impressed by the idea that correspondents do not sufficiently cultivate this truly Christian virtue. We are reminded of the quaint advice of the old writer, which runs somewhat in this wise:

If you wish to throw light upon any subject, whether by speaking or writing, it is to be commended that you first gain some smattering thereof yourself; otherwise you will be very like to precipitate yourself into difficulties, from which you will find it quite impossible to extricate yourself *therefrom*."

Stimulants. — The Louisville *Journal* beautifully says: "There are times when the pulse lies low in the bosom and beats low in the veins; when the spirit sleeps the sleep, apparently, that knows no waiting in its house of clay, and the window shutters are closed, and the door hung with the invisible crape of melancholy; when we wish the golden sunshine pitchy darkness, and are very willing to fancy 'clouds where no clouds be.' This is a state of sickness when physic may be thrown to the dogs, for we will have none of it. What shall raise the sleeping Lazarus? What shall make the heart beat music again, and the pulses dance to it through all the myriad thronged halls in our house of life? What shall make the sun kiss the Eastern hills again for us, with all its own awaking

gladness, and the night overflow with 'moonlight, music, love and flowers?' Love itself is the great stimulant—the most intoxicating of all—and performs all these miracles; but it is a miracle itself, and it is not at the drug store, whatever they say. The counterfeit is in the market, but the winged god is not a money changer, we assure you. Men have tried many things—but still they ask for stimulants. The stimulants we use, but require the use of more. Men try to drown the floating dead of their own souls in the wine cup, but the corpse will rise. We see their faces in the bubbles. The intoxication of drink sets the world whirling again, and the pulses playing wildest music, and the thoughts galloping—but the fast clock runs down sooner; and the unnatural stimulation only leaves the house it fills with wildest revelry, more silent, more sad, more deserted, more dead. There is only one stimulant that never fails, and never intoxicates—Duty. Duty puts a blue sky over every man—up in his heart it may be—into which the skylark, Happiness, always goes singing."

Diphtheria.—This serious disease, which, from its real presence, (but more especially from the exaggerated rumors put afloat by interested and dishonest parties), has, during the last year or fifteen months, occasioned much popular excitement in this city, now occurs but in rare, sporadic cases. It is no longer to be recognized as, in any sense, epidemic among us. It is gratifying to be able to chronicle the fact that, although a very large proportionate mortality has marked its history under the treatment of the various irregular practitioners—under the judicious measures now generally adopted by the scientific physicians of our city, the *per centage* of deaths has been very moderate—probably not to exceed from *four* to *six* per cent. This result is doubly gratifying to us as journalists, as this journal has, from the inception of the epidemic, steadily sustained those principles of treatment which experience has shown must be relied upon for successful results.

Berkshire Medical Journal.—We accidentally omitted to notice in the January number, the advent of a new Medical Journal, of which two numbers have now been received. It is published at Pittsfield, Mass., under the editorial charge of Prof. Wm. Henry Thayer, M. D., and Prof. R. Cresson Stiles, M. D., of the Berkshire Medical College; monthly, at $2.00 *per annum.* We are under especial obligations to this new candidate for professional favor, for the very valuable extract from Prof. Thayer's paper on Diphtheria, which we reproduce in this number. We welcome the *Berkshire Medical Journal* to the list of our exchanges, and heartily trust it will be generously sustained by our Eastern professional brothers.

— When Hannibal was engaged in his seige of Rome, the citizens, to show their sense of security against his assaults, and their contempt of his vain efforts, bought and sold the ground upon which his army was encamped, at or even above its previous rates in the market. So it is now with regard to the little grounds of truth upon which the many false systems of medical doctrine, which attempt the hopeless task of overturning legitimate medicine, are encamped. We shall not abandon those truths, but hold them in equally as high estimation, as though they had never been defiled or dishonored by the footstep or grasp of any short-lived delusion, or evanescent cheat, clad in the attire of medicine.

The Balance of Account.—The balance of account between satisfaction and remorse, was jocosely stated by Dr. Warren to Lady Spencer, who had said she thought the frequent reflection that a different treatment might have saved their patients, must embitter the lives of medical men, he told her that the balance was greatly in favor of satisfaction, for he hoped to cure her *forty* times before he killed her *once.*—*Physic and Physicians.*

Shaftesbury Paraphrased.—Many succeed in *pulling down* to a miracle, who have miserably fallen in attempt to build up. Though compassion in real war may make the ruinous practice less delightful, 'tis certain that in the medical warring world, the springing of mines, the blowing up of towers, of bastions and ramparts of Medicine, with *systems*, hypotheses, *opinions* and *doctrines* into the air, is a spectacle of all others the most naturally rejoicing.

— The *American Medical Association*, although in danger of being robbed of some of its *prestige* as a National Assemblage, by the progress of the secession movement, seems quite likely notwithstanding to prove of some ultimate use. If it has not accomplished all at first proposed, it has at all events profited by learning what to avoid in its future course. Wrangling over the manifold details of the code—ventilation of conflicting notions as to the proper manner of conducting medical colleges—petty squabbles between sectional interests—all that sort of thing will probably hereafter be wholly ignored. The Association will lend its energies to the real work of developing the Science and Art of Medicine. Unfortunately, notoriety is more easily acquired by "rising to points of order," or by indulging in acrimonious personalities of debate, than by the slowly accumulating results of industrious observation and study. We "indulge a trembling hope," that hereafter the National convocation may cultivate the latter to the neglect of the former.

Experience.—Experience has its principles as well as philosophy; for experience *is* philosophy—the philosophy of common sense; and it is well that you should know that these principles are nothing more than the aphorisms, proverbs, maxims, and wise sayings, current in the world. These are the pith and essence of multitudinous experiments, experience, professional, moral, domestic, or national, as well as physiological and pathological. In a word, they constitute empirical knowledge. The proverb, to mention a solitary instance, of "Conceit (or the fancy, imagination) will kill, and conceit will

cure," is an embodiment of the philosophy of globulistic and mesmeric therapeutics. The acquisition of a certain amount of medical knowledge, by uninstructed daily experience, is equally illustrated by the proverbial saying, "A man is either a fool or a physician at forty."

What, then, is the requisite conduct for the attainment of the wise experience of which I speak? Simply this: long-continued, sedulous, accurate observations of manifest external phenomena—observation independently of aids, and therefore prompt, because practicable under all circumstances, in which the eyes, the ears, and senses generally can co-operate with the instinctive exercise of the judgment, or common sense, as it is termed. There must be the practised eye and ear, trained by long use; and practised judgment, trained by careful exercise. All men have not the natural qualities; many want the industry; but to those who have both, experience will afford a power of intuition such as is is sometimes really marvellous in its results.—*Laycock on Medical Observation.*

Transactions of the American Medical Association, Vol. 13, 1860, pp. 930. Printed for the Association.

The current volume of the Transactions is beautifully printed, with clear type, upon good paper. Besides the usual formal records of the annual session, it contains:

Report on the Medical Topography and Epidemics of New York, by Joseph H. Smith, M. D.; Report on *ditto* of North Carolina, by James H. Dickson, M. D.; On various Surgical Operations, for relief of defective vision, by M. A. Pallen, M. D., of St. Louis; On the Improvements in Surgery during the last Fifty Years, by Joseph N. McDowell, M. D., of St. Louis; On Morbus Coxarius, by L. A. Sayre, M. D.; On the Influence of Alcoholic Drinks on the Development of Pulmonary Tuberculosis, by N. S. Davis, M. D.; Education of Imbecile and Idiotic Children, by H. P. Ayres, M. D., of Indiana; On Inebriate Asylums, by C. McDermont, M. D., of Ohio; Medical Education, by D. M. Reese, M. D. etc., New York; Medical

Literature, by D. F. Wright, M. D., Tennessee; On Medical Necrology, by Christopher C. Cox, M. D., Maryland; Plan of Organization; Code of Ethics, etc., etc.

Many of these papers exhibit much industry in preparation, and are substantially valuable. We shall find occasion for inserting some extracts hereafter.

THE YEAR BOOK OF AMERICAN CONTRIBUTIONS TO MEDICAL SCIENCE AND LITERATURE.

Dr. O. C. Gibbs wishes us to say that, because of the money crisis and the unsettled state of National affairs, his proposed *Year Book* will be delayed for a time. He is, however, in hopes to issue sometime during the coming three months. So soon as *one thousand* names (1000) are received as subscribers, the work will be put to press. Thankful for the kind words spoken for him by nearly all journals, and the expression of encouragement given by subscribers, he must still ask his friends to continue to labor in his behalf. He has spent much time and money in starting an enterprise that he had hoped would meet a professional want, and do honor to American Medicine. A professional expression of sympathy and encouragement is all that is wanted to insure success and perpetuity to the enterprise. Every physician in the country should become a subscriber; but if one in ten will aid the enterprise, a *summary* of American Medical Literature and progress will be given to the profession. We know of no one work, of ten times the cost, that will give the same amount of information. Terms $3.00 per year, to be paid on the issue of the work. Subscribers should direct at once to O. C. Gibbs, M. D., Frewsburg, N. Y.—*Com.*

— To which does Burton refer, physicians or patients, when he writes: *Qui medice vivit, misere vivit?*

OBITUARY.

At a meeting of the students of Rush Medical College, held in the Lecture Room, Feb. 12th, for the purpose of passing resolutions expressive of their sympathy with Prof. Miller on the death of Mrs. Miller, on motion B. Ward was elected President, and M. Reece, Secretary. A Committee on Resolutions was appointed, consisting of Messrs. Clark, Russell, Buck and Comstock, who reported the following resolutions, which were unanimously adopted:

Whereas, It has been announced to us that our friend and instructor, Prof. De Laskie Miller, has been deeply afflicted in the loss of his companion, and

Whereas, It has been our pleasure to know and appreciate her high social and intellectual qualities, therefore,

Resolved, That we tender him our sympthy and condolence in this great bereavement, and although we cannot know the plenitude of sorrow which fills *his* heart, yet we feel that society has lost one of its brightest ornaments, a true woman, and one whose name is embalmed in the memory of every member of this class. While we commingle our tears with those of the afflicted family, we commend them for strength and consolation to that Power who is Love, and who doeth all things well.

Resolved, That, if agreeable to the wish of our bereaved friend, we will attend the funeral of the deceased as a class.

Resolved, That a copy of these resolutions be transmitted by the President and Secretary to the Prof. Miller, and also to the *Chicago Medical Journal*, and daily papers, for publication.

B. WARD, President.

M. Reece, Secretary.

E. A. Clark,
E. F. Russel,
S. S. Buck,
J. D. Comstock,
} Committee.

Aphorism for Medical Students.—That which is once clearly understood can scarcely be forgotten; whereas that which is not understood or misunderstood, it were well it should be banished from the memory as speedily as possible.

— "The poets had a clear idea of the folly of preferring the mountebank and witch to the physician, when they made *Æsculapius* and *Circe*, brother and sister, both children of the Sun, as in the verses—

Ipse repertorem medicinæ talis et artis
Fulmine Phœbigenam stygia detrusit ad undas.

—Æneid, VII, 772.

And again—

Dives inacccssos ubi Solio filia lucos, &c.—Ibid., 11."

—Bacon Adv. Learning, B II.

To Business Men.—Your attention is requested to this Journal as an advantageous advertising medium. Enjoying as it does, the largest circulation of any professional journal in the North-West, and with constant additions to its subscription list—going into almost every town and city of any importance in this section of the country—a notice in its advertising columns will be sure of vastly greater publicity than usually befalls advertisements in most periodicals. Terms as moderate as could reasonably be desired.

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RUSH MEDICAL COLLEGE.

NINETEENTH ANNUAL SESSION—1861-62.

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The annual announcement will be issued soon.

☞ For information with regard to the institution, address the Secretary,

R. L. REA, M. D.
Chicago, Ill.

CHICAGO MEDICAL JOURNAL.

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SELECTED.

TREATMENT OF BLENORRHŒA AND KINDRED AFFECTIONS.

Dr. Morey employed in four cases of gonorrhœa: twenty grains of Herrings & Co.'s extract of India hemp, mixed with a half-a-drachm of sugar of milk, and divided into sixty powders, one of which is to be taken every three or four hours. The success was complete in every case.—*Ogleth. Med. and Surg. Journ.*

The internal use of hemlock extract (*conium maculatum*), as recommended by Dr. Staats, of Albany, has been found of good effect in several cases of acute gonorrhœa, by Dr. A. H. Stephens, of Camden, Ohio. In two cases the lunar caustic, zinc, copaiba and cubebs had failed to suppress the discharge, while the extract of hemlock, given in the form of pills, twelve grains every two hours, proved sufficient for a complete cure in a few days. Where the inflammatory symptoms are very prominent, the treatment is commenced with calomel and compound powder of jalap.—*St. Joseph Jour. of Med. and Surg.*

A combination of vinum colchici and tincture of opium, internally exhibited for a rheumatic conjunctivitis, by Dr. Eisenmann, of Werzburg, turned out accidentally as a cure for a coexisting blenorrhagia. Further experiments by Dr. Eisenmann himself, and Dr. Collin, of Dresden, have since established the value of that combination against all blenorrhagic discharges. The mixture employed consists of twelve grammes of vinum colchici and two grammes of laudanum. The dose is eighteen or twenty drops, three times a day. Milk was ordered as the principal article of food, and absolute rest was enjoyed. Externally, only frequent applications of tepid water. All cases thus treated were cured within a week, and most of them in a few days.—*Bull. Gen. de Therap.; Brit. and Foreign Med.-Chir. Rev.*

Dr. Diday employs (*Annuaire de la Syph*, etc.,) in chronic blenorrhœas injections of nitrate of silver into the prostatic glands of the urethra. To effect this, he first measures the urethra by introducing an elastic catheter and gently drawing it back during the flow of the urine. As soon as this ceases, the end of the catheter is in the prostatic portion; at that moment, then, the instrument is marked at the point in contact with the external orifice, and about an hour afterwards the injection is made. For this purpose, the patient stands before the surgeon, holding the penis in a horizontal direction; the catheter being introduced, a solution of about five or ten grains of nitrate of silver in about an ounce of water is injected with a glass syringe, at first one-fourth of this quantity being used. In intervals of half-minutes the catheter is drawn back about two lines and another portion of the solution injected. This may be repeated in thirty-six or forty-eight hours; the abnormal secretion usually ceases in half that time. —*Vierteljahrschr. f. Prakt. Heilk*, Bd. 66.

In acute cases, where only the anterior portion of the urethra is affected, the same author found (*Gaz. Med.*, 1859, 26) one injection sufficient, provided the urethra be previously washed out with water. Three parts of the nitrate are required to one hundred and eighty parts of distilled water, of which solution two drachms should be injected at a time, but not beyond a distance of two inches. The fluid is moved up and down in the urethra by pressure with the fingers for about three minutes, and then allowed to escape. That constitutes the whole treatment.—*Ibid*, Bd. 65.

The alcoholic tincture of aloes (about five drachms diluted with five ounces of water) has been employed successfully

against blenorrhœa by S. Gamberini, of Boulogne, and others. Three injections are made every day. The discharge disappears in less than a fortnight.—*Revue de Therap; Jour. of Mat. Med.*

Repeated trials have convinced Dr. Gaby, of Paris, that injections of oxyde of bismuth constitute the very best treatment of gleety discharges. Thirty parts are suspended in two hundred of rose water, and so injected as to leave as large a deposit of the salt as possible in the canal. Three injections per day should be employed at first, and then fewer. Urethral discharges unconnected with gonorrhœa, as observed in certain diatheses, in masturbation, venereal excesses, etc., have been successfully treated in this manner. Balanitis, balanoposthitis and herpes præputialis yield rapidly to bismuth applied in powder, after cleansing the part and then covering with cotton. The various forms of vulvar leucorrhœa may be treated with the same agent; after removing the complications, the bismuth acts upon the discharge like a specific. But it is to be remembered that this remedy is only adapted to chronic cases; pain and other signs of acute inflammation contraindicate its employment.—*North Amer. Med. Reporter.*

Dr. Weeden Cook endeavors to affirm that copaiba in the treatment of gonorrhœa is not only unnecessary, but in a great many instances injurious. In six thousand cases that have come under the author's care at the Royal Free Hospital, he took advantage of the large opportunity thus offered, to test the different methods of treatment which had been suggested, and now makes the following statements in regard to them. The abortive treatment by strong injections of nitrate of silver has sometimes resulted in inflammation of the bladder, and has proved a failure. Dilutants are slow in their action and not readily employed by persons in active business. Diuretics are scarcely more successful, and the administration of saline aperients is generally attended with an aggravation of the ardor urinæ as well as chordee. The most successful treatment is that by the alkaline carbonates, given with a view of neutralizing the acid in the urine, and thus removing one great source of irritation from the inflammed urethra, whereupon the subsidence of the inflammation is effected by nature. As auxiliaries, especially where there is œdema of the prepuce, lead lotions and elevation of the penis against the abdomen, are recommended. When the inflammation has subsided, and a muco-purulent discharge is left, the speediest cure is effected with injections of chloride of zinc, one, or better two, grains

to one ounce of water. In the strumous, the dyspeptic, those of dissipated habits, and old-offenders, the alkaline carbonates are not called for, because either the urine is not acid, or the inflammation does not run high. In such cases, the tincture of iron or sulpheric acid and bark, or gentian, or calumba, may be advantageously employed from the commencement. The chloride of zinc is in such cases of the utmost value. Respecting diet, scarcely any restrictions need be enforced after the subsidence of the inflammatory symptoms; beer or wine in moderate doses may be advantageously used by those accustomed to these beverages.—*London Lancet.*

A very specified treatment of gonorrhœa and gleet has been given in the lectures on venereal diseases, by Dr. F. J. Bumstead, published in the late *New York Journal of Medicine.* For the abortive treatment of the disease in the male adult, he prefers the weak to the strong solution of nitrate of silver, say one or one and a half grains in six ounces of water. This should be injected at short intervals, until the discharges become thin and watery, and slightly tinged with blood. But this treatment is only adapted to the first stage of the disease. When acute inflammatory symptoms have already set in, or the patient suffers from scalding in passing water, a brisk cathartic is the first thing to be given. If the penis is much swollen, a mixture is advised of bicarbonate of potassa, two drachms; tincture of hyosciamus, one ounce; mucilage of gum Arabic, five ounces; a tablespoonful every three hours. As soon as a syringe can be inserted without much pain to patient, an injection is made after every passage of urine with a solution of one scruple of extract of opium in one ounce of glycerine and three ounces of water. In subacute cases, from half to one grain of sulphate of zinc to the ounce of water may be added. As a local means for the relief of uneasiness, local pain, scalding in micturition, Dr. Bumstead fully endorses Dr. Milton's statements in regard to hot water, as hot as it can be borne. For the third stage of gonorrhœa, injections are pronounced a weapon indispensable to the surgeon. Sulphate of zinc (twelve or more grains in four ounces of water) and nitrate of silver constitute the proper ingredients for these injections. In connection with them, copaiba or cubebs may be administered; the last named either alone or with the former, or, if the case demands a tonic, with iron or quinine. For the relief of the chordee, either lupulin will serve in fifteen grain doses, or full doses of camphor tincture, or lactucarium and camphor, one grain of each, made into a pill.

In the treatment of gleet, the bowels should be kept open daily with pills composed of half a grain of strychnine and half a drachm of the compound colocynth pill; this to be made into thirty pills, one of which is to be taken at bedtime. As a tonic and astringent, the muriated tincture of iron is usually indicated, and best exhibited in doses of from five to twenty drops three times a day. The tincture of cantharides may, where it is indicated, be combined with the iron tincture, in the proportion of one to three, and ten drops of such combination will form a dose. Where the constitutional impairment is considerable, quinine may be added. In regard to local treatment, Dr. Bumstead speaks highly of bougies. Except when aggravating the symptoms, they may be passed every second or third day at first, and afterwards every day, or even twice a day. They may also be medicated with gray ointment and extract of belladonna. For injections, sulphate of zinc is preferable, two or three grains to the ounce of water forming the standard of medium strength. This solution should be employed as frequently as the patient is able to pass his water, or every two or three hours. In obstinate cases blisters may be tried.—*Lancet & Observer.*

ERGOT; ITS NATURAL HISTORY AND USES AS A THERAPEUTIC AGENT.

Prof. E. N. Chapman, of the Long Island College Hospital, concludes an excellent article in the *Medical and Surgical Reporter* (Jan. 19th) with the following summary:

1st. The active principles of ergot are the products of a plant, the oidium abortifaciens. These are peculiar to it, and are in no wise more dependent on the grain-germ, than any plant is on the soil that affords it nourishment.

2nd. These principles—not as yet isolated—are, probably, two in number; one of which, contained in the oil, produces narcotic symptoms, and eventually gangrene; the other, remaining in the residue after the extraction of the oil, acts by stimulation on the motor tract of the spinal marrow at that limited portion whence the uterus and contiguous muscles receive their nerves of motion.

3d. The oil is alone efficacious in any form of hemorrhage, excepting in that from enlarged uterus, and we can only look for favorable results when the system has been brought under its influence, as shown by a narcotic impression on the brain and heart.

4th. So hazardous a treatment cannot be countenanced; since we possess other remedies of known virtues, not only more reliable, but unattended with any risk.

5th. The watery preparations, which, lacking the oil, can be given many days in succession, will act on the motor tract of the spinal marrow, but will not induce ergotism or other evidence of a narcotic poison.

6th. Ergot of good quality causes the uterus to contract with great certainty whenever its cavity is distended, either by a fœtus or a morbid growth. These contractions are tonic and continuous, with periods of remissions and exacerbations.

11th. Hence, this remedy may originate uterine pains at any period of gestation, or cause the expulsion of clots, hydatyds, or any other unattached substance.

12th. Likewise, after labor, it will check an excessive flow by closing the mouths of the bleeding vessels through a condensation of the muscular fibres of the uterus. In relaxed conditions it will be, on the same principle, beneficial in after-pains attended with a copious show.

13th. Since we know of no other mode by which ergot can immediately arrest hemorrhage from the pregnant uterus, it should be avoided in all cases where a hope still remains of saving the conception, and its agency invoked only when the fœtus is dead or the safety of the mother becomes our first duty.

14th. In premature labor, induced by ergot, or in labor at the full period, where this drug is given, the child's life is jeopardized in all cases, where for a considerable period previous to the delivery, the uterus is thrown into violent spasmodic action; since thus the supply of oxygen will be most effectually cut off.

15th. Where the child is viable, the ergot should never be used as an expulsive agent to increase pains, already powerful, or overcome resistance from the soft parts of the mother.

16th. It may be required in cases of inertia of the uterus where, with all the parts relaxed, we are quite certain, both from the present appearances and the history of former labors, that the child would be born in four or five vigorous natural pains.

17th. The dangers to the mother from the use of ergot, arise from the uterus thus stimulated, rupturing the unyielding parts in its transit. Thus the neck of the uterus, the bladder or the perineum may receive serious injury.

18th. Rupture of the uterus could hardly occur, excepting in a diseased organ.

19th. A premature fœtus from its small size and the yielding nature of the cranial bones could scarcely, under any uterine effort, cause damage to the soft parts of the mother.

ON GLYCOSURIA AS AN ACCOMPANIMENT OF MARSH FEVERS.

BY DR. BURDEL, Physician to the Vierzon Hospital.

Dr. Burdel regards marsh poison as a myth, and looks upon marsh fever as a result of a perturbation of the cerebro spinal centre and the sympathetic system, adopting very nearly the same phrase as the one by which Bernard defines glycosuria. The author of the present paper, in his researches into the nature of marsh fever, has confirmed the above view of its character by ascertaining in the majority of cases the presence of sugar in the urine.

Dr. Burdel employed the test with liquor potassæ, Feeling's liquids, the test with bismuth and potash or carbonate of soda, and the yeast test. It was especially in the first commencement of the attack that the quantity of sugar was considerable; it diminished gradually towards the termination of the paroxysm, and generally disappeared entirely during the interval. The closer the attacks approach one another, the larger the amount of sugar.

In eighty cases of well marked intermittent fever, the author uniformly found sugar; in thirty other cases, in which the fever was at first intermittent and subsequently became remittent, the sugar was present, but only in small quantity and for brief space. In two cases of intermittent fever, following typhoid fever, a considerable quantity of sugar was shown to be present.

In the case presenting the largest quantity of sugar, as much as 10 per 1000 was found.—*L'Union Médicale.*

CUTANEOUS DISCOLORATIONS.

Dr. Laycock, in the *British and Foreign Review*, gives the following conclusions:

1. That besides blue and green, of rare occurrence, there are two common well-marked and distinct forms of morbid discoloration due to pigment deposit—the *yellow* or sallow, and the black or *swarthy*.

2. That both yellow and swarthy discoloration of the skin will occur from the action of local irritants—as heat, light, cutaneous parasitic fungi, blisters, sinapisms, and the like, or in the progress of various cutaneous diseases of the skin and its appendages.

3. That the absence of pigment (leucopathia), as well as its deposits, may be caused by inflammatory and other diseases of the skin, affecting its chromatogenous function.

4. That morbid states of the cerebro-spinal centres will influence the deposit or non-deposit of pigment.

5. That morbid states of the genito-urinary organs in both sexes, acting probably through the nervous system, will determine the election of locality of pigment-deposit, according to the same law by which the development of sexual hair and pigment is regulated.

6. That structural diseases of the abdominal viscera and peritoneum also exercise an influence through the nervous system upon the local deposit of pigment in the skin.

7. That in disease of the supra-renal capsules, the bronzing of the skin, whether swarthy or yellow, is partly nervous, and due to the direct or indirect influence of the capsules or the kidneys and nervous system; partly hæmic, and in so far due to the morbid influence of "dyscrasic" blood.

8. That pigmentary changes in the skin of both whites and blacks may be *result* of morbid causes, and yet may remain after the operation of the causes has ceased, and assume a physiological character.

9. That although local morbid pigmentation of the skin may occur exclusively from local causes, or the influence of the nervous system, in the majority of cases there is a morbid condition of the blood.

10. That the morbid conditions of the blood associated most commonly with pigmentary changes are characterized by those changes in the blood-corpuscles (leukæmia, leucocytosis)

which are observed in cachectic states of a constitutional character (pregnancy, chlorosis, tertiary syphilis, chronic rheumatism, cancer, etc.), or which are intimately connected with "dyscrasic," visceral, or glandular diseases (of the spleen, suprarenal capsules, lymphatic glands).

11. That the tendency to discoloration increases (*cæteris paribus*) with age after a certain period of life.

12. That the morbid pigment-deposits proper, as distinguished from masses of altered blood-corpuscles, are carbonaceous excretions, and are often vicarious with the suspension or imperfect elimination of other carbonaceous excretions—as the carbonic and lactic acids, and the pigment constituents of both the urine and bile; and are consequently associated with morbid states of assimilation, as well as of elimination (through the skin, lungs, liver, kidneys).

13. That amongst the morbid states of assimilation, the rheumatic and gouty are specially to be classed, as well as those coincident with anæmia.

Semeiology.—Pigmentary changes in the skin, and pigment-deposits in the tissues, are observed clinically under the most varied conditions, and have given trivial names to groups of symptoms. *Jaundice* (*jaune*, yellow,) is the simplest illustration of these. The deposit of black, or brown, or blue pigment in the skin of white races has led to the use of various nosological terms indicative of the change—as *melasma*, *melanopathia*, *nigrities*, *bronzed skin*, blue skin, or *cyanopathia*, *meliceris*, *stearrhœa*, *flavescens*, *stearrhœa nigricans*, chlorosis (or *green* sickness,) *melancholia*, *melanchlorosis*, *melasicterus*, etc. As to the absence of pigment, we have *albura*, *leuce*, *leucopathia*, *vitiligo*, *canities*, etc. The congenital absence known as albinism has always excited curious attention, and, as those who have treated albinos know, coincides with peculiar forms of disease. I need not refer to the albino forms of animals, nor to the curious ethnological doctrines and oppressive laws which have originated in the presence or absence of cutaneous pigment, except to say that a better knowledge of the pathological forms will necessarily throw much light on the physiological.

Classification of Morbid Pigments.—The pathological pigments are of two kinds. 1. The *spurious*, which consists either in foreign carbonaceous matters, or in direct modifications of the coloring matter of the blood-corpuscles after they have died; these pigments are all some form of hæmatine, and present all the shades of black, brown, yellow, and purple.

2. The *true*, being those pigments which are products of the transformation of the living blood-corpuscles, or tissues, and which must be held to differ from the preceding in the circumstance that they are the results of the action of the vital forces. They are of all colors; correspond in this respect to the normal coloring matters of animals; and are found in the cutaneous appendages and excreta, but especially in the urine and bile.

Le Cat, a surgeon at Rouen, was the first to examine systematically the morbid pigmentary changes of the human skin in their relation to anatomy, physiology, and organic chemistry. He details cases of melasma and nigrities, and distinguished what was evidently a case of "bronzed skin" from ordinary melasma and icterus.* He examined the pigment (which he termed "Æthiop's mineral") chemically, and showed that the coloring matter of the ink of the cuttle fish was identical in nature with that of the skin of negroes, and of the choroid coat of the eye. He was also the first to observe that the encephalic tissues of the negro were of a darker tint than in whites—an observation subsequently confirmed by Meckel and others, and very recently by M. Gubler. Although considerable progress in observation has been made during the last century, we may still say, with Alibert, "Les lois de la coloration sont encore couvertes d'un voile epais."

Modern inquiries have ascertained that black pigment is deposited morbidly in the tissues, mucous membranes, and capillaries (melanosis), as well as in the skin (melasma), and that it is sometimes present in considerable quantity in the blood (melanæmia). Its nature and composition have also been carefully examined of late years. Barruel first attempted to show that the chemical composition of the black deposit in melanosis was identical with that of the colouring matter of the blood. Breschet founded upon this analysis and upon his own researches the conclusion that the deposit was due to effused and modified blood with a large proportion of true colouring matter; and Heusinger, Lobstein, Andral, Trousseau, and Leblanc, J. Vogel, Bruch, Rotkitansky, Virchow, and others, have theorised as to the mode in which the pigment is formed from the blood.† It is now well established

* Traité de la Couleur de la Peau Humaine, &c., p. 158. 1765.

† Compare Rokitansky's Pathol. Anatomy, Sydenham Society's translation, vol. i. p. 204, and Virchow's elaborate paper. Die Pathol. Pigmente, in Archiv f. Path. Anatomie und Physiologie, vol. i. art. 9.

that although the pigment in numerous cases really consists of modified hæmatine, derived directly from the blood-corpuscles, the deposit in melanosis, melasma, and nigrities is not of this kind.

HYPOCHONDRIACAL INSANITY AS A PRECURSOR OF GENERAL PARALYSIS.

BY M. BAILLARGER, of the Salpetriere, Paris.

General paralysis is a common and most serious phase of mental disease. It attacks patients of all ages, and its progress towards a fatal termination exhibits stages of the most melancholy and humiliating nature. All medical men accord it as being most insidious in its approach. It may be long in becoming fully developed, presenting at first only the most trivial indications, in many cases so trifling as to pass altogether unobserved; and when the malady does at last attract attention, it may be too late for arresting its advance. It is therefore most important to attend to this disease at the very first; and it is with this object that it seems useful to describe the intimate relation existing between the hypochondriacal form of melancholia and general paralysis.

The relation being understood, it becomes one means of detecting the advent of that disease at the very commencement of its attack. It is of importance to distinguish this symptom, as the melancholy accompanying general paralysis very much resembles melancholia in its simple form. The conceptions or illusions of the hypochondriac, however, although of considerable variety, are yet of such a tendency as often to present something of a special character in their nature. The patients believe that their various organs are changed, destroyed, or completely obstructed: they pretend, for example, to have no mouth, no abdomen, no blood—that their gullet is stopped up, their stomach quite full, their bowels shut up; they imagine that their food passes from its ordinary channels—that it gets into their skin, or even their clothes. Four patients believed their body to have become putrid. Many among such are afflicted with hallucinations of smells. Some keep their eyes closed, and allege they are blind; others cease to speak, and state afterwards that it was impossible for them to open their

mouth; they assert that they cannot swallow, nor defecate, nor make water; they affirm that their members are altered—that they are larger or smaller; they say they do not exist, or even go so far as to believe themselves dead; they remain motionless, the eyes shut, and when their limbs are lifted they let them fall, as if completely paralyzed. These different delusions lead to serious consequences: many of the patients refuse, more or less obstinately, to take food, and sometimes it becomes necessary to feed them by means of the stomach pump; and such patients speedily become much emaciated. I have seen, says M. Baillarger, a lunatic die in eight days from obstinately resisting the employment of the stomach pump, under the impression that his stomach was completely full, and his gullet obstructed. One patient pretended he could not make water, and used every effort to retain it; his bladder became enormously distended, and he was at last attacked by a veritable retention, and it was with great difficulty the catheter could be used. In the end a false passage was made, and the patient died, while yet in the first period of the disease.

The tendency to gangrene, which is one of the characteristics of general paralysis in its latter stages, exists in these cases markedly, and before its usual period. Four cases had large eschars over the sacrum, without ever having been confined to bed; one woman, who for a year had exhibited all the symptoms of commencing general paralysis, preserved every appearance of health otherwise, when, all of a sudden, she became affected with hypochondriacal melancholia, and six weeks afterwards died of gangrene in both feet.

Hypochondriacal delirium is thus not only a mere premonitory symptom of certain forms of paralysis, but it is a serious symptom, and one very unfavorable in prognosis.

In reference to this affection, viz., that of hypochondriacal insanity—viewed as one of the precursors of general paralysis, this being the fact of most practical value in connection with it, the delusion of which we have spoken seem to claim especial attention, as they are sometimes to be detected in patients as yet evincing no indication of paralysis—this supervening at a later period. Such a termination is certainly not invariable; but is so common after this symptom, and the prognosis in such cases is so unfavorable, that considerable importance seems to attach to the subject. Thus Dr. Combes published some remarks on a case of "Lypemanie," with stupor, and other serious symptoms—nothing, however, indicating that at a later period this patient should be attacked with paralysis; and,

after fifteen months' residence in this asylum, where he was treated, he was dismissed as cured. In reading Dr. Combes's remarks, I was struck, observes M. Baillarger, with certain of the delusions affecting this patient. He had believed that he was about to die, if indeed not already dead; that his limbs were atrophied, that he had none, etc. These appearing to be good grounds for suspicion, I wrote Dr. Combes to know what had become of the patient. The answer confirmed my suspicions to be correct;—the result having been that, after a year's return to his occupations, he had been attacked with general paralysis. We may see by this example, that, had hypochondriacal delirium been held as a certain precursor of general paralysis, this affection might have been foretold two years before it actually took place.

It may appear strange that one form of insanity should thus be urged as premonitory of paralysis. Singular as it may seem, however, it is not the first time that such a doctrine has been urged. Since the writings of Bayle, no medical man doubts the fact of certain forms of insanity, such as the ambitious form, being symptomatic of approaching paralysis. And if one form of delirium be held, in mania or monomania, as indicating the advent of paralysis, there seems no reason why this particular hypochondriacal form should not serve the same purpose, and with equal certainty, in melancholia.

We do not attempt explaining these facts; and, we may add, it seems useless to do so, either here or in the case of ambitious insanity. One point connected with the ambitious form may be mentioned; and that is, the relative frequency of general paralysis among females in different ranks of society. While this malady is equally common among males of all classes, among women it is not so.. It is very common among the poor, and very rare among the rich. It would appear, however, that this circumstance has been forgotten by those who would explain the greater number of cases of ambitious insanity as induced by ideas of speculation—by the desire of suddenly arriving at honors and fortune.

In conclusion, it appears evident that hypochondriacal no less than ambitious insanity may, in different circumstances, be considered as a prognostic of general paralysis. The intention of the present paper has accordingly been to direct attention more particularly to the latter of these forms. As for the first, I have frequently had occasion, before now, to refer to it in all its remarkable psychological characters.—*Gazette des Hopitaux*, Sept. 1860, and *Edinburyh Medical Journal*, Dec. 1860.

Perversion of the Mental and Bodily Faculties as premonitory symptoms of General Paralysis. By M. Brierre de Boismont.—This paper, read at the meeting of the "*Académie des Sciences*," Sept. 24, 1860, may be considered as a sequel to that of M. Baillarger, read at its previous meeting, and just noticed. After alluding to the medico-legal aspects of such cases as are characterized by a tendency to theft and other criminal propensities, the author states that his observations have been carefully collected from a hundred examples falling under his own care, and respecting which he had already communicated to the *Société Médico-Psychologique* those alterations in character and disposition throwing light upon the question under discussion.

According to his observation, the most frequent symptoms —in fact, what occur in three-fourths of such cases—are, great irritability, movements of impatience, anger, and violence. In a much smaller proportion of cases, the disease assumes on the other hand, characters of indolence, and apathy, and gentleness. Such patients are reasonable and well-conducted; but between their words and actions there is an insurmountable discrepancy observable.

In place of either of these states of mind, or along with either of them, we frequently find perversion of the moral faculties: individuals who until then had been of unimpeachable character, suddenly becoming irreligious, immoral or dishonest. These indications are important to be observed, as they are often unsuspected by any one as being connected with the diseased condition existing. The propensity to steal is, perhaps, of all others the commonest among this class of symptoms, and seems to some extent connected with that peculiar flow of spirits common in such patients, and evinced in their delusion that they are rich, powerful, and lords of all that they see—a state of mind which, in its results, sometimes entails the most painful consequences.

It is thus certain that the greatest change in the character and conduct is often observed in connection with general paralysis, giving rise to acts of an eccentric or reprehensible nature. Such acts are, no doubt, frequently to be met with as ordinary manifestations of the disposition, but their sudden and unaccountable accession results from mental disease, and is especially connected with general paralysis: they are its premonitory symptoms—*avant-courriers*, as they have been styled by Dr. Forbes Winslow, in his work "On Obscure Diseases of the Mind and Brain."

Our principal reliance in the diagnosis of such cases must rest on the general bearings of the disease. In the greatest number of instances where sudden alteration in character, disposition, and conduct become apparent, there is reason to fear the accession of general paralysis; if the age is from 35 to 45 years, and excess of some kind, such as sexual or intellectual excess, and hereditary predisposition can be added, the prognosis becomes all the more certain.

Besides these characteristic symptoms, we must not lose sight of a very common occurrence connected with them,—that is the frequency of attacks of the nature of cerebral congestion. This may occur in the shape of a transient stunning sensation or giddiness, and pass off without attracting much notice; but it does so more commonly, and is of serious importance. Such congestions entail weakening of the intellectual faculties, loss of memory, and absence of mind. The mind loses its ordinary power. If the patient resume his occupation, and take to any work requiring application, the difference is at once observable in his capability of conducting it. His benevolence is greater than usual; there is a confidence betraying itself in his speech, which foretells the advent of insanity in its ambitious form. On the other hand, but less frequently, there is a state of dejection, the tendency to melancholia and hypochondriasis.

But the disorders of the muscular system are the key or touchstone for our guidance in this disease. One of these is of much importance, and manifests itself in a passing, transient trembling of the lips; a scarcely perceptible embarrassment in speech; a hesitation in pronouncing a certain word or letter, which does not occur except at long intervals. Taken by itself, this symptom may not be determinative, although it is of great assistance: but if it be added to diminution of motive power, such as may be observed in asking the patient to grasp one's hand, or his own limb, the certitude becomes increased tenfold. To these symptoms may be added, inequality of the pupils, exaltation or failure of the sexual functions, diminution of the cutaneous sensibility, tremors of the muscles, and the results of analysis of the urine, and the indications afforded by means of electricity. We have also, in many cases, adds the author, observed paralysis of the sixth pair, amaurosis and attack of deafness, precede by several years the occurrence of general paralysis, and serve as the means for its prognosis. — *Gazette des Hopitaux*, Oct. 1860, and *Edinburgh Medical Journal*, Dec. 1860.

PHYSIOLOGISM AND SCEPTICISM.

BRINTON'S LECTURE.—Extract.

So little of the truth, indeed, is there in the notion that the study of Physiology favors scepticism in religious matters, that the contrary statement might be maintained with considerably more semblance of accuracy. A subject which continually reminds us of our ignorance should scarcely make us vain; or which perpetually tells of what nevertheless we cannot observe with any of our senses, to doubt of the existence of a realm which at present lies altogether beyond their inquiry. Nay, more, if it were desired to minister to a mind diseased in this its most important part, it would be difficult to specify any better intellectual discipline than the study of Life and organization. If the sight of the stars in the sky could seem to the mind of the great Napoleon a scornful but complete answer to the sceptics who reasoned around him in his voyage to Egypt; and if he, in unconscious imitation, could draw from this spectacle the same lesson which David had done thousands of years before; surely the transcendent mystery which a drop of standing water reveals to modern observation—the throng of shapes, structures, instincts, and habits, which jostle each other in this microcosm—amount to no meaner teachings, and afford no less certain proof of a Creator. The honest doubter, I should rather say, may find in Physiology what, so far as his doubts are really intellectual, and not moral, must tend to shake and remove them. And any exception to this rule would almost justify the suspicion that his study of the subject was of that superficial and scanty character which, though it may, in the technical phrase of student life, grind men for the College or Hall, will most assuredly fit them for nothing useful in this world or the next.

The charge of Materialism is more difficult to deal with, mainly because of the sophistical sense in which the word has been used, and the odium it has therefore come to convey. To parody the sturdy Welshman's answer to the anti-Germanizing clergyman who casually held forth in his parish, "Here, sir, the great danger is of 'immaterialism.'" The only decently scientific hypotheses, in other words, which represent the material and its antagonist theory, are both of them, so far as I dare venture to judge, as perfectly compatible with religion

as are the Books of Euclid. Indeed, I question whether they are not quite compatible with each other—whether the difference be not in great degree one of terms or words, rather than of ideas. One side, for example—well represented by one of the most able physiologists of the day, Dr. Carpenter—is inclined to assume the existence of a force or forces, so unlike anything we meet with in the inorganic creation—that is, so characteristic of life—as to be fitly named *vital*. These forces ceasing at death, allow the substance they previously tenanted and governed to fall back, as it were, into the domain of the ordinary laws of matter, in obedience to which they now decay and disperse into the world around them. The other side, which I will instance by the illustrious Valentin, regard Life and Organization as sustained in great measure by the same laws as those which, in different degrees and modes of working, operate in the inorganic world. Declining to separate physical and chemical phenomena of dead and living nature by a line of demarcation hitherto not definitely proved to exist, and confidently resting on the innumerable and undoubted facts which prove that such forces as heat, light, magnetism, chemical affinity, are every moment operating in the living body, it supposes that even the most peculiar and fleeting of these operations which we sum up as Life, are effected, in obedience to natural laws, by the use of forces everywhere present.

Of the theologian who should call this "Materialism," I would ask, "How does it affect revealed religion, or infringe our common creed?" Its supporters, in assuming that "the vital functions are the result of an infinitely wise plan of organization," do but modify, and indeed modify by exalting, our notions of the infinite wisdom they explicitly acknowledge. The materials, so to speak, they regard as fewer, simpler, more general, less heterogeneous, than had hitherto been imagined. Scientifically, they must only gain their position more fully by proving it more fully than they have yet done. But, theologically, if there be any difference, surely it is that the simpler the materials, the more unimaginable must be the skill and wisdom of the workmanship.

To balance between the two theories on physiological grounds is perhaps, less easy and conclusive. A critical intellect can, indeed, generally find something about the hypotheses more or less constrained and inexact. They never quite fit the limbs of growing science; and, to keep up this homely smile, Physiology, after limping uneasily about in them for a short

time, soon treads them down at heel. The vitalist, for example, cannot question the share taken by inorganic forces in the ordinary functions; or the contrast between systemic and somatic death; between the death, for example, of the whole animal, and that death of its muscles which only comes on several hours after, and can be deferred or even removed by the injection of blood. The supporters of the opposite view, on the other hand, must be compelled to admit that we are still possibly ignorant of some of the forces which must essentially minister to life; and that, of these unknown forces, it is not impossible some may be more or less limited to organized or living matter. Each theory is thus more attractive according as you choose to foster your attention on the differences, or on the likenesses, of the forces concerned in the living and lifeless divisions of Nature. Each, however is only provisional; and if the latter may be regarded as any way preferable, it is only because it seems to be perhaps the more accurate and useful, precisely where it is the more modest, of the two; because it implies fewer consolations or excuses for our ignorance, and holds out larger incentives to our industry.—*London Lancet.*

PAIN.—*Superficial pains on both sides of the body, which are symmetrical, imply an origin or cause the seat of which is central or bilateral; unilateral pain implies a seat of origin which is one-sided, and as a rule, exists on the same side of the body as the pain.*

This is an important stand to take in endeavoring to unravel any obscure case through the medium of local pain. I must therefore repeat that in cases of symmetrical pains on the surface of the body, without the local manifestation of inflammation by an increased temperature of the parts, the cause must be central; and that if the pain be felt on one side only, the cause is only on one side, and it on the same side of the body as the pain.

Associated with disease in the lower cervical, or the lumbar or the dorsal vertebræ, the pains are almost always symmetrical, whilst in the diseases between the occiput and atlas, or between the atlas and the second vertebræ (the vertebra dentata) it often happens that the pains are unilateral, or one-sided.—*Hilton's Lecture.*

ORIGINAL COMMUNICATIONS.

VALEDICTORY

TO THE GRADUATES OF RUSH MEDICAL COLLEGE, FEB. 27TH, 1861.

BY J. ADAMS ALLEN, A. M., M. D.,
Prof. Prin. and Prac. of Med., and Clin. Med.

Genilemen of the Graduating Class:

The pleasant duty of welcoming you to the ranks of our honorable profession has been devolved upon me, and I accept the trust with the greater alacrity, because I am fully convinced that in accepting you as Doctors of Medicine, the Trustees and Faculty of Rush Medical College can, with justifiable and honorable pride, assert that you have worthily won, and we are fully convinced that you will honorably sustain, this respectable character. Custom has sanctioned the usage of commending to the attention of graduates, upon an occasion like the present, certain suggestions of a more general nature than those which we, as your instructors, have previously had opportunity to convey, and yet which we believe will be found practically useful in your future career.

It is unnecessary to remind you that your medical education, so far from being finished, is this day but just commenced —alas, that so many who have gone out from the various schools of medicine so often think otherwise!

You have secured the right to append M. D. to your autograph, but be pleased to remember that there is nothing cabalistic about these mysterious letters—you will yet learn, if you have not already, that these will not of themselves prove an "Open Sesame" before which the gates of success and prosperity will spontaneously swing wide and free for your ingress.

The degree of Doctor of Medicine is, perhaps, a ticket of admission to the race ground of professional life, but your success upon the course, thereafter, must depend upon the kind and vigor of your subsequent efforts.

We fervently trust that in the coming time, the Faculty of this College may have no occasion to say to any one of its athletæ, this day admitted to the friendly contest: "*Ye did run well, what hath hindered you?*"

We regret to inform you that the course, intervening between you and the goal you seek, is not altogether free from obstacles which may seriously impede, or, if you are not prepared to overcome them, altogether check your progress. The track is not a clear one, on the contrary it is beset with snares and pitfalls, hurdles and five-barred gates, by-ways and cross-roads, pleasant to the view, perhaps, but terminating in chaos and dishonor.

Another thing, although the Grecian monarch refused to run the Olympic race unless he could have kings for competitors, you cannot imitate his royal reticency. You will have to make your way, side by side, with the unseemly mounte-bank, decked perhaps with pods of Capsicum, Lobelia stalks, and a steam boiler to make up for his acknowledged light weight. And then next him, "Lo, the poor Indian!" makes the white runner who steals his moccasins and herbs, rich in wings of speed like Mercury (*not* Calomel) of old mythology—the seven leagued boots of nursery tale are nothing to them. And then comes the so-called Eclectic—"a catcher up of unconsidered trifles" thrown away by you and your confreres —he fattens upon them like an ass upon thistles, or an ostrich upon bits of window glass and rusty nails, and waxing fat in popular success, he kicks at you in your tardiness and discomfiture.

And next comes a figure which perplexes us to describe, for it seems neither matter nor incorporeal essence—a kind of starveling imitator of Ariel or tricksy Puck in serio-comedy, essaying to put an immaterial girdle around the world of

disease within the forty minutes. It does not seem to walk or run, but is *puffed* along by the side of you—outstripping you, as the butterfly or thistle-down eludes the pursuit of the truant schoolboy.

> *It* is perfumed like a milliner,
> And twixt *its* finger and *its* thumb *it* holds
> A "*potency*," which ever and anon
> *It* gives the nose——
>
> * * * And still *it* smiles and talks.
>
> * * * *
>
> With many holiday and lady terms
> *It passes* you. * * *
> *It* tells you the sovereigns't thing on earth,
> Is *Pulsatilla* for an inward bruise,
> And that it was a great pity, so it was,
> That villainous *Calomel* should be digg'd
> Out of the bowels of the harmless earth,
> Which many a good tall fellow had destroyed
> So wretchedly; and, but for these vile drugs
> *It* would *itself* have been a "*Regular.*"

It passes you, whilst embroidered handkerchiefs wave out upon it an atmosphere of Cologne from drawing-room windows, where *vapors* stifle all womanly intelligence—benedictions float out upon it from the shutters of dapper preachers whose—

> "Dear dyspepsia grows a dire disease,"

beneath its toothsome attenuations—titillating, if not the stomach, at all events, the fancy of him who undertakes the cure of souls upon quite other grounds than *similia similibus curantur*.

Let them pass on—all—to what of future fortune the world is full of prophetic assurances.

Be not discouraged at the sight of worthless ignorance or viler imposture, from time to time, securing an apparent advantage over you. It is the same in all pursuits involving the employment of intellect and thought. Why even the high truths of revealed religion are little popular among the masses of mankind. They love Joe Smith rather than St. Paul, and will not receive even truth itself unless, as Milton said, arrayed like a notorious falsehood.

How few there are that can grasp the meaning, and the calm trust of the inspired singer of Israel:

"Whither shall I go from thy spirit? or whither shall I flee from thy presence? If I ascend up into Heaven thou art there: if I make my bed in hell, behold thou art there. If I take the wings of the morning, and dwell in the uttermost parts of the sea; even there shall thy hand lead me, and thy right hand hold me. If I say surely the darkness shall cover me; even the night shall be light about me. Yea, the darkness hideth not from thee; but the night shineth as the day; the darkness and the light are both alike to thee. I will praise thee; for I am fearfully and wonderfully made: marvellous are thy works; and that my soul knoweth right well."

How many, alas, are there who choose rather than this the chamber darkened like their own feeble intellects, and then the senseless mummeries, or worse and more wretched than these, the fatuitous blasphemies of modern spiritualism! The follies and absurdities enacted in the name of Medicine, are but the light and trivial shadows projected from the Egyptian darkness of myriad religious superstitions. Sometimes it would seem that there is a compensatory arrangement of some minds, by which it occurs that clearness and profundity in one direction of thought are balanced by dimness of vision and superficiality in another. This is the only way in which I can account for the presence and prayer of a prominent clergyman of this city the other day, at the public *raree*-show of one of the baldest systems of imposture which the present age, prolific as it is of deception, fraud and villainy, has yet produced. And this very system of imposture is thus endorsed:

> "Though contradicted every day,
> By facts which sophistry itself would stumble o'er;
> And to the very teeth a liar proved,
> Ten thousand times."

You must free yourself from the idea that men only need to see the right and true in order to recognize and follow it. Why it is but a few brief months since the "Universal Yankee" boasted at home, and upon all the continents and seas, that he was a subject of the freest, the happiest, the most

prosperous and most perfect government the world ever saw. Universal suffrage and the will of the majority were the panaceas for all political woes. And yet the feasting of the "sovereigns" in November, furnished the "funeral baked meats" which did coldly set forth the marriage tables of a new wedding, without even the judicious formula of a legal divorce from the older tie. And now one half of the country is dancing with joy over its new sensation, as Nero fiddled at the burning of Rome; whilst the other half is dissolving in lamentations, as helpless and still as the marble Niobe of ancient fable, shedding stony tears for its slaughtered children.

Gentlemen—There is no accounting for the phases of human folly, for its ludicrous foibles, its whimsical crimes. In Medicine, as in everything else, you must take the world, as you find it—not to whine over it, but to do something in it—something to make it better; something to make you fitter to stay in it, because more dissimilar to the uneducated (and even some of the educated) rabble which choke up *all* the avenues leading whether to success, or defeat and ruin.

It is well for you to propose to yourselves, clearly and definitely, what you mean by success in professional life. Indeed everything depends upon your apprehension of this idea—for the life which from one point of view may seem a failure, may really be a splendid triumph, and the reputed success in truth a most ignoble defeat.

Do you propose to yourself the success which riches attest? Then you must conjoin to your medical attainments that knowledge of the details of general business, or speculation indispensable to the making of money. The very best authorities on the subject of money getting, assert that the particular kind of trade or profession in which a man may commence his life has, in reality, little to do with the real process of getting rich. The millionaire, Girard, said that the first thousand dollars he accumulated, cost him more real effort and struggle than all the rest of his vast possessions therewith acquired.

To secure this object you must, in medicine as in other pursuits, simply live within your income, however small it may chance to be, and then invest the surplus under ordinary business rules. It is very rarely, only in cases as exceptional as prizes in a lottery, that medical men acquire wealth merely from the surplus of their professional receipts over their expenditures. To acquire the first hundreds or thousands, you must, in your trade of doctor, please your customers, and rigidly collect your bills, precisely as other tradesmen do. These are all the secrets involved in acquiring the success of wealth. But if you make this the sole object, do not complain if by and by you find that you have failed in securing professional distinction, or in acquiring the riches of profound knowledge—ye cannot serve the God of Medicine and Mammon as joint partners.

Or is your ambition directed toward the securing of popular reputation, the fame of a large practice and the winning of golden opinions from all sorts of men and women? If so, you must adopt a different course. You must, like a political demagogue, adapt yourself to the humors and tastes of all with whom you are thrown in contact—literally becoming all things to all men, and especially all women. Read the advice of Polonius to his son Lærtes and bear his,

> " precepts in thy memory.
> Look thou character. Give thy thoughts no tongue,
> Nor any unproportioned thought his act.
> Be thou familiar, but by no means vulgar.
> The friends thou hast, and their adoption tried,
> Grapple them to thy soul with hooks of steel;
> But do not dull thy palm with entertainment
> Of each new hatch'd unfledg'd comrade. Beware
> Of entrance to a quarrel: but being in,
> Bear it that the opposer may beware of thee.
> Give every man thine ear, but few thy voice:
> Take each man's censure, but reserve thy judgment.
> Costly thy habit as thy purse can buy,
> But not expressed in fancy; rich not gaudy:
> For the apparel oft proclaims the man:
> * * * * * *
> Neither a borrower nor a lender be;
> For loan oft loses both itself and friend;
> And borrowing dulls the edge of husbandry."

If you will have this kind of success, *denounce nothing*—in

the cant language of the day, be conservative among conservatives, a radical among radicals, but beware of the pen and printer's ink, lest your heedless expressions unhappily rise up in judgment against you elsewhere. If you are connected with a church—within its folds be the chief of sectaries, but outside of that give utterance to the largest catholicity of views.

In your practice charge the leaders of opinion nothing or a nominal sum for your services, and then make up the deficiency, if possible, from those nonentities in society whose complaints are never noticed or regarded. Secure by indirect influences the appearance of your name in the newspapers as often as possible, and to aid in this laudable course, connect your name if possible with eleemosynary associations, especially where, in consideration of your acceptance of an office, they will not call upon you for contributions, except perhaps of words which cost you nothing. Or seize the opportunity of having your name posted upon the corners of all the streets as "the distinguished lecturer" upon some topic which will not involve controversy, or anything beyond the utterance of glittering generalities. When among the adherents to scientific medicine assume to be the soundest of all true Æsculapians, but do not forget when among any of the disciples of other and strange creeds to be ready to admit your own dissatisfaction with many generally received opinions, and descant as learnedly as you can upon the wonderful benefits which have been derived by legitimate medicine from the engrafting upon its lopped limbs of these varied bastard scions. If you have fluent utterance and you are quite sure your grammar is unimpeachable, be "instant in season and out of season" with your tongue,

"To tickle the maggot born in an empty head,"—

but if you have doubts upon this point avoid the *magpie* as your exemplar, and enthrone the *owl* in its place. You can scarcely conceive the power there is in shrewd silence on occasion, or the immense influence of the wise and oracular look.

When Lord Mansfield was Chief Justice of England, a general officer in the army, one of his friends, came to him in great perplexity, saying that he had got the appointment of Governor of a West India island; which made him very happy until he found that aside from his gubernatorial duties he was also to act as a judge, hearing and deciding causes. As he knew nothing whatever of law, this troubled him exceedingly. Lord Mansfield said to him, "Be of good cheer —take my advice, and you will be reckoned a great judge as well as a great commander-in-chief. Nothing is more easy; only hear both sides patiently—then consider what you think justice requires and decide accordingly. But never give your reasons;—for your judgment will probably be right, but your reasons will certainly be wrong." Two or three years after an appeal came up from a decision of the Governor, based entirely upon the ludicrously absurd reasons he had given for the judgment. It turned out on inquiry that the Governor having acquired much reputation by closely following Lord Mansfield's advice, began to suppose himself really a great lawyer, and that this case carried up was the first in which he had given his reasons, and was the first appealed against. Truly, as Carlyle exclaims, "*Great is silence*," for, we may add, by its potent influence the children of this, and all other generations, prove themselves far wiser than the children of light!

I ought not to forget to add that if you are forced to speak of professional matters, as in explaining the case of a patient to inquiring friends, or more particularly in a court of justice where a large audience is present, you must use only the most ultra technical phrases and terms to convey or conceal your ideas—"words of learned length and thundering sound," whose ponderous proportions and unintelligibility will fall upon the senses of the hearers as having great *specific* gravity. To illustrate, in explaining the influence of improper food in causing indigestion, you can say that: "The concatenation of ineffable self-existence proceeding in a hypostatical dupli-

cate ratio from the primordial concoction of the supermundane essence has caused the bacon and greens to degenerate, and thus has given the poor caitiff—a stomach-ache!" Thus you will often gain more "in a flash, than if your brain pan were an empty hull and every muse tumbled a science in."

By these and similar arts you may secure the success of popular reputation—but when attained, if you find yourself despised by your honorable professional brethren, and poor indeed in scientific attainment, contemptible even to yourself—do not complain of the profession for not awarding you success. According to your faith it has happened unto you. As you have made your bed you must lie in it—albeit upon thorns.

Machiavelli says: "The occasion of every man's good or bad fortune consists in his correspondence and accommodation with the time."—The man must seek to adapt himself to the particular circumstances in which he is placed, and make all their influences bend to the accomplishment of the especial object proposed, but when he has thus proved himself the "architect of his own fortunes," he must not blame the times, or the methods, because the completed edifice does not fill up the proportions of his ideal. If you have struggled and fought for a taste of the apples of Sodom, do not scold because on sinking your teeth beneath the cortex, instead of pulp you find ashes. You will say with Paracelsus:

> "You know my hopes;
> I am assured at length those hopes were vain;
> That truth is just as far from me as ever;
> That I have thrown my life away; that sorrow
> On that account is vain, and further effort
> To mend and patch what's marr'ed beyond repairing,
> As useless: and all this was taught to me
> By the convincing, good, old-fashioned method
> Of force—of sheer compulsion."

You will have labored and toiled for the Midas-power of turning whatever you touched to material gold, or the duller metal of popular applause, and if this satisfies you not, beware of lugubrious complainings at fortune for the calamity, lest you be adorned with the already sprouting *Midas-ears*.

The sacred proverb is: "Though thou shouldest bray a fool in a mortar among wheat with a pestle, yet will not his foolishness depart from him," and the experience of later times is, that should you supply the fool with a *mortar* he will not cease of himself to *bray*.

Notoriety, Gentlemen, is a cheap commodity. Plutarch gravely records in the life of Alcibiades, that he had a magnificent dog, the admiration of all the citizens. One day, this much admired animal appeared in the streets of Athens deprived of his tail—curtailed, in short. The dog-fanciers of all Greece were in mourning over this dire extremity, and wondered at Alcibiades for the act. But the biographer lets posterity into the secret. There was a lull in the politics of the time, and Alcibiades was determined still to be talked about—hence the canine misfortune. Without punning—may we not say "thereby hangs a tale" for the lovers of notoriety even in our times? It is a more expeditious and compendious method than many which now are frequently adopted.

I must caution you here, however, that if you attempt notoriety, you must not adopt the outworn, stale methods. None of our communities would now submit to the sottishness of a Paracelsus, the brusqueness of Abernethy, the coarseness of Jebb or the brutality of a Radcliffe. Tremendous neckcloths, flashy waistcoats and all the assumed eccentricities and absurdities of costume have gone the way of wigs, cocked-hats and gold-headed canes. Neither will the ruse of Jehu-driving, aimless and objectless, to the imminent danger of pedestrians, avail. Neither the frequent call from service at church or crowded assemblages—all that was exploded years ago.

Now-a-days people require more delicate manipulation. *Humbug* must "take any other shape but that"—it must be managed with the most perfect tact and finest artistic taste. This thing is now reduced to a scientific system, and if you *must* attempt to strike that vein, you must use a most delicate scalpel, remembering all the time that you are not carving a

goose, but practicing one of the most recondite and perplexing of the fine arts.

Whether the desired result is worth the necessary effort, I will leave it for you to determine—merely suggesting that, rather than be a professional Jeremy Diddler, it would be less trouble for you, and certainly of far more advantage to the world, to blow your brains out entirely before you begin to use them thus.

In the time of William and Mary, in the case of *Buxton versus Mingay*, the case turned upon the point, whether within the meaning of the act of Parliament, a *Surgeon* is an *inferior tradesman*. The Chief-Justice Wilson, says the chronicler, took the liberal side, saying: "I am clearly of opinion the legislature could never intend that a Surgeon is an *inferior* tradesman, or dissolute person, although he may sport without being qualified to kill game." But Judge Bathurst added —"I can never be of opinion that the legislature intended to permit every master of every little mechanic trade to neglect his trade and go hunting. I am of opinion that every tradesman is *inferior* who is not *qualified*—and that is the only line we can draw between inferior and superior." This famous decision was always exceedingly distasteful to our English faculty, although the penalty of want of qualification was only the loss of a chance to shoot hares and foxes and grouse. But the gist of the decision is that, whether surgeon or tradesman, he who is not qualified is, and must continue, *inferior*.

That physician who most perfectly qualifies himself to discharge the high duties of his profession, achieves the truest and only real success. That is the success at which each of you, Gentlemen, and every member of the great fraternity of medicine, should most constantly and assiduously aim. Seek *that* qualification if you would rise above the "inferior tradesman" or mere "dissolute person." Seek that success, and all others will be added to you. This is the "royal road" for which the ancient king inquired in vain. We opine that if we look into this idea a little, we shall find something of more

value than the aims, methods and results we have thus far noticed.

Between the good and poor physician the only difference is in their respective knowledge. An easy morality suggests that some particular faculty or tact likewise distinguishes them. Admit this, and even then the difference is but one of knowledge. If the difference is real and positive, then is it a subject of investigation, and of ideas which may be cultivated and perceived. He who tells us that one man may not surmount the barriers which separate him from another, in effect declares that he has faculties which may not be developed: he blasphemes the law of God which impresses the attribute of perpetual development upon the human mind in all its parts. The *divina particula auris* breathed into the nostrils of man at the creation will be felt forever—immortality and infinity of growth wait upon it.

All knowledge is in the line of your profession. It is an idle fallacy that would restrict the province of the physician to the mere mechanism and derangements of the material frame. *That* we recognize as the medium of manifestation of all those high forces whereby it is knit and connected in the harmonious series, from the monad to the Supreme. No man as the physician may say—*Homo sum! nihil humanum a me alienum puto.*

The biographer of the celebrated Dr. John Mason Good tells us that he wished to bring himself under the urgent obligation of a *moral necessity* to attain the greatest possible amount of knowledge; and this feeling conducted him to an eminence of attainment which, in any other field than medicine, would have placed him side by side with the highest names which will go down to immortal fame. The sovereignty of man lies hid in knowledge, as Bacon says, and thus the only true success you may possibly attain is by securing this sovereignty.

The Osiris of Egyptian mythology was likewise known as Serapis the God of Medicine. Osiris is considered as the

type of the active, beneficent, generating force of nature and of the elements. He was particularly adored in the sun whose rays vivify and impart warmth to the earth, and who on his return in the spring appears to create anew all organic bodies. Isis, of the same myth, represents the passive force or recipient, and was worshipped as the symbol of the earth or sublunary nature in general. United together, Osiris (or Serapis) and Isis typify the Universal Being, the Soul of Nature, the Pantheus of the Orphic verses.

Osiris having enriched Egypt by his benefits visited other countries, instructing them in agriculture and the arts and sciences. On his return, his brother Typhon, with the assistance of other conspirators, killed him, and, dividing his body into many fragments, scattered them throughout Egypt.

Typhon illustrates the destructive principle, ignorance or error, which is still allied to truth, even as a brother. The whole myth mystically alludes to the introduction and influence of error in the world. But Typhon or error and destruction did not altogether prevail, for Isis still remained alive, who sought earnestly for the dissevered fragments of Osiris, and as each was discovered she enclosed it in a statue of wax representing him, and distributed these effigies throughout the country which living he had blessed by his instruction and labors.

Thus, also, once came Truth into the world, most glorious to be seen, but anon also came Error, than which nothing is more destructive, and with its army of deceivers hewed the body of Truth into innumerable fragments, scattering them to all the winds and continents and seas. Since that time the disciples of Truth have gone like mourning Isis, up and down, collecting the dismembered fragments of truth, and though they have not as yet been able to reconstruct the whole body, they have endeavored to embalm each recognized part in an effigy of amber, that it may be preserved to that coming time when, all the particles having been discovered, they may be re-arranged in the body and framework of life

imparting Truth. Isis still mourns her own griefs in the absence of the full protective and beneficent influence of Osiris, while the pestilential breath of Typhon mars the fair banks of the Nile.*

> Terra salutiferas herbas eademque nocentes;
> Nutrit, et urticæ proxima sæpe rosa est.

In assuming the position of *Doctores Medicinæ*, Gentlemen, I take it that you are at the same time inspired with a more fervid zeal in the search for truth. For how is it possible for Serapis to have escaped when Osiris was torn in pieces? Indeed we are inclined to believe he was mangled not as Osiris the active force of nature, but as Serapis the God of Medicine. The brood of Typhon still remain unchained, and the destructive energies still oppose the healing art, sometimes even under the guise of its devotees. When error comes in its proper habiliments, it is easily detected; but there are modes where it creeps into confidence which are not so readily disclosed. You are fully aware that in this province there must be much patience and groping in the dark—much struggling with the uncertain and untrue, before the light of discovery begins to dawn. Yet "the essence of truth is plainness and brightness, the darkness and confusion are all our own." How often has it happened that some spawn of Typhon has put the workings of ignorance into wild and unintelligible language, undertaking to transform philosophical medicine into a dreaming and ignoble mysticism—*asinus portans mysteria.* The way both of deceivers and deceived, like "the way of the wicked is darkness, and they know not at what they stumble."

The peculiar position of medical science between the present and past is fruitful of difficulty to the investigator of truth.† We rely upon the past for facts and experience, upon

* The elaboration of this simile was suggested by a passage in the prose works of Milton.

† Subjectum illud medicinæ (corpus nimirum humanum) exomnibus quae naturæ procreavit maxime est capax remedii; sed vicissim illud remedium maxime est obnoxium errori. Eadem namque subjecti, subtilitas et varietas, et magnam facultatem præbet, sic maxime etiam aberrandi facultatem.

the present for observation and advance. You can depend upon neither to the exclusion of the other. It is but an idle calumny which asserts that our science is wedded to the dicta or dogmas of historic times. Yet experience, to be valuable, *must* embrace great cycles of time. The apparent fact of a day, or even of a whole life-time, may be proven by a year, or by the centuries to be untenable and false. The phenomena of astronomy are aptly illustrative of this. The "fixed stars" are now known to move, and you must not be surprised to find the "fixed fact" of your own experience, as you may deem it, prove migratory, in obedience to a higher law than your special senses, or even your intellect, can now appreciate. There are some minds which have more respect for the voices coming up from the depths of an obscure antiquity, than for that which descends from the throne of the Omniscient. And so there are others to which, as Ovid says: *Est quoque cunctarum novitas carissima rerum.* The novelty of a thing is all that is needed to commend it to their belief. Practically such minds brand all the accumulated wisdom of the past as folly. But the old and the new are not like the Manichæan principles ever in conflict, but rather as the Castor and Pollux of Roman myth. Castor or the Past is first removed from the earth, but nevertheless still shares the immortality of Pollux or the Present, by the especial direction of Jupiter himself, who we may well recognize as Jupiter Serapis the God of Medicine.

To the seeing eye objects become visible which escape the superficial observer; to the cultivated perception ideas become familiar that the sciolist may never comprehend. To feel the necessity, and subject ourselves to the sway of influences of an appropriate nature, we have but to truly consider what we owe to our race, to ourselves and to our God. Do we need to enlarge upon this point?

To the medical man it is especially requisite that vivid ideas of the objects and responsibilities of his position should con

stantly be presented, that thereby his energies, his perceptions and volitions should be correspondently intensified.

You have passed the years of your pupillage in the offices of your preceptors, and in the halls of the Medical College—you go out hence merely to continue the student life. You are to use what you have thus gained for the double purpose of benefiting your fellow men in the hours of pain and danger, and also for gaining an honorable subsistence for yourselves and those dependent upon you. But it will never do for you to depend upon the interest of this little capital. The years will depreciate it—the world will move past you and your little hoard. You may fancy yourself rich, but the accumulating treasures of the coming time, in the hands of those who will eagerly strive for them, will leave you pauperized in the contrast. There is no standing still in this life of ours—you must move onward or you will steadily float backward. Some of you may have entertained the hallucination that if you have cleverly mastered the details of the text book and of the curriculum of lectures, anything beyond is simply "carrying coals to Newcastle,"—but let me assure you, you might do worse than this, provided you carry better coals than they have in Newcastle. There is no danger. Bostonians tell of one of their wealthy families whose progenitor laid the foundation of an immense fortune by carrying *warming pans* to Cuba. Being at a loss for frieght the worthy gentleman asked the advice of a waggish friend, and credulously took him at his word when he jocosely advised him to this strange cargo. But lo, when the vessel reached Cuba, the warming pans were just the article wanted by the planters for syrup and sugar ladles, (the lids for skimmers,) and the happy shipper returned rejoicing with his hold filled with sweetness. The moral is clear as sunlight—it is the idle man that Nature and Fortune despise, but all the gods help those who try to do something themselves.

Many of you will soon commence the duties of practice for the first time. The chances are that it will come to you

slowly and gradually—I could almost desire it to be so for your own sakes. This will give you time to investigate each case as it is presented, with great care and minuteness. Never permit yourself to do otherwise, particularly in the early years of your practice. A conclusion, possibly correct, which you jump at, although it may give you temporary *eclat* with the populace, is, in plain language, a professional injustice to yourself and patient. As a mere matter of policy, you had better take the character of the earnest, pains-taking, careful interrogator in every case. I once heard a gentleman, whose name ranks among the highest for legal fame and success, say that he never undertook a case, however apparently clear or trivial, without devoting to it all the labor and thought of which he was capable, as though the reputation of his life depended upon that single case. The result was a continuous success almost without parallel. Take this course with your first patients, young Gentlemen, and your success is certain. You will become thoroughly grounded, profound, expert and strong, when your well earned reputation shall have widened the circle of your practice to its largest limits.

Another thing—now while you have time carefully record each case, with all its characteristics, not merely its *peculiarities*, as is too often done. You will thus cultivate exactness and definiteness in your ideas, and will presently be the possessor of a medical treasury invaluable to you and the world. Adopt some good system, and religiously set down the facts without concealing your mistakes or blunders. We often profit more from unexpected results and blunders than could have been anticipated. The unexpected result will awaken inquiry, and the recognized blunder will forever prevent its own repetition. It will do you a world of good by and by, and encourage you to continue by the evidences of improvement it will daily and monthly exhibit.

But you must not depend upon your own experience alone, but seek to profit by that of all intelligent members of the profession. This is to be done to a limited extent by ordinary

social conversation with your colleagues, or more rarely in such well ordered medical societies as you may find which may make it their object to develop the science and art of medicine. The trouble with these is that, owing to the ordinary weaknesses of human nature, they are too often prostituted to the purposes of individual notoriety, the advancement of clannish or clique interests, and especially to "operate" as executioners under the "code."

A better method than this is to purchase regularly such volumes as constitute a staunch evidence of advance in medicine. From the large number of medical periodicals select not less than two for permanent subscription. Ten or fifteen dollars a year for medical periodicals and from twenty-five to fifty per year for medical books ought to be set apart as the least possible sum to be devoted to this purpose. It will pay in reputation although you should never read them; and it will prove a perennial fountain of satisfaction within you, provided you "read, mark, learn and inwardly digest" them.

Knowledge to-day is a cosmopolite. Read the books and journals carefully and conscientiously, and you will have no real need of going to New York, Philadelphia, Edinburgh, Paris, or any other place, in order to find what the medical world is doing or whereof it is thinking. A single trip to the seaboard to see a few operations performed or prescriptions made, either better seen at home, will cost far more than the central suns of a library which will dispense with all further necessity for such smoky torches as those. And here, at the risk of being tedious, allow me to recommend that you carefully *index* all subjects treated upon in the journals or monographs you read. Keep an "account current" with the medical, as you would with the financial, world. Literally, keep "posted up." Then, at a moment's glance, you can tell where to refer for inquiry when any subject comes up for investigation, either for immediate practical use, or for writing upon it. Let nothing escape you. Little by little, the results will accumulate until, when a few years have passed

over, you will have a *thesaurus* valuable as a mine of gold. If you propose to do anything in this world of ours, the only way given under heaven among men is to work for it, and the laborer will get his hire. For Heaven's sake do not entertain the sluggard or niggard's view of these ideas—they are immediately and intensely practical.

But if you will not continue studying and reading, be manly about it; don't *sneak* and say you "have no time." The most busily employed men of the profession always find time to read, and, what is more, to write. When I hear a physician say that he has no time to read, I am very apt to set down that man as a billiard or card-player; or, worse than either, a politician. The chances are that he will follow an ill looking dog, and carry a rifle and knapsack, for miles and miles, over logs and through thickets and brush heaps to get a chance to shoot at and miss a chipmunk or a crow. Or you will find him on the street corners, more anxious than the men of Athens "to hear and to tell some new thing" about anything else than medicine. I pray you avoid these things.

You must not expect that there will be a sensation created when you (prepared as well even as you are,) go out into the business world.

> "You'll do some excellent things indifferently,
> Some bad things excellently. Both be praised,
> The latter loudest."

Things will move on pretty much as before. You may have a good hold of the Archimedean lever, but it will be some little time before you will get a place to stand, and alas, infinitely longer still before you will find a fulcrum by means of all which you may reasonably expect to move the world. *Festina lente*—your influence will be felt although you can scarce appreciate the result, for

> "It must oft fall out
> That one whose labor perfects any work
> Shall rise from it with eye so worn, that he
> Of all men least can measure the extent
> Of what he has accomplished. He alone
> Who, nothing tasked, is nothing weary too,
> Can clearly scan the little he effects."

You cannot depend upon your genius, your tact, or anything whatever except solid attainment, for real and substantial success. When you happen to succeed, irrespective of these, do not be puffed up, but recollect how the Egyptian magicians, with their adroit enchantments, imitated Moses. The ass in a lion's skin is not a commendable or admirable quadruped. Remember that the only thing which makes the so-called liberal professions differ from mere handicrafts, is the amount of brains worked into them. Rather than be a brainless Doctor you had better be a street or chimney sweeper.

The course of instruction which this evening terminates, it is pleasurable in the highest degree to record, has been unclouded by anything which, so far as we know, could mar our mutual satisfaction. The hours have been filled to overflowing with their recurring duties, and whilst as your temporary instructors we have spared no pains or effort to make your attendance here both pleasant and profitable, we should do injustice to our feelings did we not gratefully acknowledge that upon your part, Gentlemen, there has ever been manifest an appreciative attention, a punctuality and promptness, a studiousness of habit and courtesy of demeanor which, in an unusual degree, elicit our sincerest thanks, and personally link you to our hearts in ties of warmest friendship. We leave the conventionally reserved and almost cold relation of instructor and pupil, and meet you upon the level of individual feeling. I am positive that I do not unwarrantably commit my colleagues when I assure each of you, Gentlemen, that all along the diverging paths of your several lives, the earnest good wishes and fervent God-speed of the Faculty of old Rush Medical College will ever attend you.

It seems trite and common-place to say we shall not meet again, but the heart will throb heavier with this deep emotion—

> "Thou shalt hear the "never, never," whispered by the phantom years,
> As a song from out the distance ever ringing in thine ears."

We part, but ever shall our memories, our hopes and aspirations commingle—

> "Through all the bristling fence of nights and days
> Which hedges time in from the eternities."

Pauseless as the pulses of life, we trust your onward and upward progress will keep step to the rhythm of its ever recurring duties.

> "A poor man served by thee shall make thee rich;
> A sick man helped by thee, shall make thee strong;
> Thou shalt be saved thyself by every sense
> Of services which thou renderest."

Gentlemen—My Friends, I waste language in the endeavor to avoid the final word which must be spoken. In the coming battle of life—quit you like men. We have this day given you the well earned guerdon of professional study, and now we bid you our heartfelt—FAREWELL.

INVERSION OF THE WOMB.

CASE REPORTED TO THE CHICAGO ACADEMY OF MED. SCIENCES, FEB. 1ST, 1861.

BY R. C. HAMILL, M. D.

Mrs. C——, an accomplished and intellectual lady, in her 26th year, was taken in labor with her first child, about 12 o'clock at night, Dec. 17th, 1860. She had suffered during her entire term of pregnancy from a highly exalted state of the brain and nervous system, amounting on many occasions to absolute mania. I found her perfectly calm when I was called in at 7 o'clock the following morning—her pulse a little accelerated—80 per minute. The pains were good, occuring once in five or six minutes. The os uteri was dilated to the size of a dime, yielding readily at each pain. Her bowels had been freely evacuated just before my entrance. There was nothing in her situation to mark her case as differing from an ordinary labor under favorable circumstances, except,

that I thought the antero-posterior diameter of the pelvis was slightly below the average dimensions.

There was nothing that required my immediate presence and I left the house until half-past nine. On my return the head was found fairly engaged in the superior strait—the vertex toward the left acetabulum. At 11 o'clock the head began to press upon the perineum, which was remarkably thick and unyielding, and carried the head back promptly as the uterine contraction subsided. This state of the labor continued for more than an hour, when, after a long continued expulsive effort, she complained of pain in the head, and immediately began to talk incoherently, repeating scraps of poetry, sing songs and hymns, which were uninterrupted by the most vigorous pains. She had laid upon her left side, bearing all her pains in that position up to this time, but she was now uncontrolable, throwing herself about, from side to side, straightening herself, generally during the severity of the pain.

As early as 10 o'clock she had desired me to give her chloroform. I declined, assuring her that she could bear her child without it—that there was nothing in her condition *then* calling for its effects, remarking that I always administered it with great anxiety, and only when I was convinced its aid was absolutely required. Under the present aspect of the case, and at the urgent wish of her husband, I concluded to give it, and accordingly ordered five or six drops on a clean handkerchief to be applied to her nose. The effect was speedily apparent, and the second portion, which was given at the next pain, produced quiet, which was kept up till the termination of the labor—from five to ten drops being given at the accession of nearly every pain. The child was born at 1 o'clock P. M.—a boy—weighing about eight pounds. On learning that it was a boy, she clapped her hands in delight and expressed the greatest anxiety to see it.

I waited, contrary to my usual custom, as long as ten minutes for the voluntary expulsion of the placenta. No uterine contraction occuring, I placed my left hand upon the abdomen

and commenced gentle maniputation. In a few moments the womb contracted into a firm globular tumor, when I made traction upon the cord bringing the placenta down, so that my finger could readily reach the point from which the cord took its departure. At this point it was held. Fearing that I would break the cord, which was small and weak, I ceased traction and applied my right hand over the uterine tumor, which was distinctly felt, of a regular globular shape, through the walls of the abdomen. My hand was not laid heavily upon it, neither did I make any pressure more than what was necessary to recognize its situation, when she cried out "Doctor, there is another child coming," and immediately began to strain violently. The uterus glided quickly into the pelvis, and she partially swooned. On carrying my hand to the vagina, which was done immediately, I found the placenta partly expelled and floating in a torrent of blood, about one-half of it still adherent to the inverted uterus. I peeled off the attached portion as quickly as possible, and grasping the inverted part, which was firmly contracted, and consisted of the body and fundus, endeavored its immediate reposition, but without success. I then tried to indent the fundus with my thumb, but could not make the slightest impression on it. Whilst the uterus was in my grasp I discovered that the walls of the left side appeared to be softer and thinner than any other portion of it, which fact suggested the idea of beginning the reposition at that point. Accordingly, with the fundus resting on the hollow of the hand, I made pressure with the ends of my fingers upon the weakest portion of the walls of the body of the womb, indenting it and at the same time pushing the fundus upward, I succeeded, with comparatively little effort, in carrying the inverted portion to its place, the fundus being the last to reach its normal position. My hand was not withdrawn until the contraction was complete. The patient rallied speedily and asked for her child. At this time Dr. Bevan, who had been sent for, arrived, and assisted in applying compress and bandage; for whose assistance then

and subsequently, I bear the most grateful remembrance. I remained with her until three o'clock. She drank a cup of tea and I left her in as comfortable a condition as the nature of the case would justify me to expect.

At half-past four Dr. Bevan met me again at the bed-side. There was more waste of blood than was desirable; her pulse was feeble—116 per minute; the uterus, well contracted, was felt in its proper situation. She had "sunk away two or three times" for a moment, during my absence, and had a similar sinking after I came in. The color did not leave her lips, or the pulse flag during the time, which did not exceed a moment. At the suggestion of Dr. B., powders of the acetate of lead and opium were ordered to be given once in two hours until the hemorrhage ceased. Four powders only were given during the night.

Dec. 19th—We saw her at 8 o'clock. She had a pretty comfortable night; slept some. About three pints of urine was drawn off, presenting nothing unusual in its character Pulse 100. Effervescing drinks were ordered during the day; a little dry toast and lemonade allowed her. In the evening her pulse was 120, but fell to 100 after drawing off a pint of urine.

Her husband, whose solicitude was extreme, desired me to call in Dr. Byford, who saw her about 9 o'clock P. M., and expressed himself favorably impressed with her symptoms and condition. At 10 o'clock, five grs. Dover powder and the twelfth gr. morphine were given to procure rest, and another powder left to be given in four hours in case she does not sleep.

20th—Both powders given; had some sleep and rested quietly; pulse 125; breasts a little swollen, with increased secretion of milk; lochia natural. When the child is put to the breast, complains of uterine contraction. No coagula. At each visit the fundus was felt over the pubes.

We saw her again at 6 in the evening. There had been some febrile excitement during the day which depended upon

the secretion of milk. Her body and limbs were sponged with tincture of arnica, with evident relief to the muscular soreness and numbness. An emulsion of castor oil and turpentine, with an opiate was ordered at 8 P. M., to be repeated in the morning if her bowels were not moved.

21st—Rested well, part of the night. Her bowels not moved; oil and turpentine mixture repeated, to be followed by an enema at 12 M. 6 P. M.—Bowels had been freely moved after the enema; passed urine without the aid of catheter; complained of burning pain in the urethra, which was considerably swollen; expressed herself as feeling very comfortable otherwise; pulse 100. Dr. Bevan discontinued his attention.

22d—8 o'clock A. M.—Her mother and brother, who had been telegraphed from a distant city, arrived during the evening of yesterday, and her father late in the night. Their presence drew too largely upon her nervous system, and I found her this morning, to use her own words, "quite miserable." Had slept very little, and since three in the morning had suffered with pain in her back. Her tongue was slightly coated, but not dry; some headache; pulse 120; abundant secretion of milk; lochia natural in quality and quantity; free secretion of urine; the abdomen a little swollen, with some tenderness on pressure; a burning pain in the pelvis; no unusual heat of the vagina, except along the course of the urethra, which was swollen and painful. I ordered calomel X grs., Dover's Powder XV grs., to be divided into three powders—one every two hours. A fine cloth moistened with a solution of morphine was laid upon the orifice of the urethra, and effervescing powders were ordered *ad libitum*.

Her husband, again growing alarmed, desired counsel and proposed Dr. Byford, who was sent for and met me at 12 M. Symptoms the same as in the morning; pulse increased to 128 per minute; complained of a burning pain deep in the pelvis. The opinion of Dr. B. was, that inflammation of the womb was to be feared, and that active medication to control

such tendency was clearly indicated, and suggested that she should be put upon the use of veratrum viride immediately in full doses; accordingly verat. virid ℥ j, tinct. hyosciamus ℥ ij was ordered—one teaspoonful every six hours; and he further suggested that one grain of sulph. quinine should be given every six hours, alternating the two prescriptions; and ungt. belladonna was applied to the urethra. Turpentine and alcohol had been applied to the abdomen in the morning and were continued.

23d—Had rested better; very little pain any where; pulse 115. 12 M.—Met Dr. Byford at the bedside; pulse 110; general modification of all the symptoms; treatment continued, veratum viride and quinia at increased intervals, once in eight hours each. Citrate of magnesia to move the bowels.

24th, 12 M.—We found her very comfortable, without pain any where; the bowels had been freely moved; pulse 80 and soft. Her case required little farther treatment, and she is at this date, February 1st, 1861, enjoying uninterrupted health.

So much interest has been elicited on the subject of inversion of the uterus since the Fisher-Stone trial, that I have been induced to give a more minute history of this case and its attendant circumstances, than otherwise might have been deemed necessary. I have been practicing medicine for nearly 25 years, and have had a good proportion of obstetric service to perform during the greater portion of that time. This is the first and only case that has occurred in my hands, and it has induced me to modify my opinion in relation to the occurrence of that accident.

In this case the inversion could not have been prevented by any ordinary precaution—the eccentric state of the organ could not be discovered by any of the usual rules that govern the conduct of an accoucheur.

In the first place, we have an adhering placenta, large, filling the relaxed neck of the uterus; second, the walls of the body of the organ, weak and thin at least on one side, with slight contraction; third, the fundus firmly contracted. With

this condition of the parts, an expulsive effort could scarcely fail to carry the fundus through the unresisting body and neck, and eventuate in partial or complete inversion. Nothing but support from within, by the hand of the accoucheur, could have prevented, I am convinced, in this instance, the occurrence of the accident. Many of the cases attributed to unwarrantable traction upon the cord, and resulting to the serious prejudice of the attendant, may have depended upon the same, or a similar cause—the accoucheur as innocent of the result as the infant that has just been ushered into the world. The error consisting, not in the occurrence of the accident, but in the failure to recognize and at the moment report the inverted organ.

PROTECTIVE POWER OF VACCINATION.

BY H. NOBLE, M. D.

Heyworth, March 6, 1861.

Mr. Editor:—I desire to offer to the profession through the *Journal* some observations made several years ago which illustrated the protective power of Vaccina.

The result of the cases treated by me at that time and the effect produced on those exposed to infection, led me to adopt some additions to the theory of protection which I have not seen taught by the standards or in monograph.

I will in the first place state that I believe Vaccina affords perfect protection from Variola; next, that protection once obtained by Vaccina continues undiminished through life. Third—That perfect protection can be obtained by repeated vaccinations, and that the proper time to renew the operation is as soon as the vaccine disease has run its course. No evidence of the efficacy of the vaccine disease is satisfactory until it is ascertained by trial that the vaccine virus has no more effect. Fourth—The protection does not depend on the size,

form or character of pustule, or indeed on the existence of the pustule at all, but on the constitutional disease.

I know that this last position is very different from the opinion of many of my confreres who have often been known to gravely inspect the cicatrix left by the pustule many years before to ascertain if the disease had been '*genuine.*'

But let me give a few of the cases and see if they sustain the positions taken.

In the fall of 1849 a pauper woman and her infant were admitted into a family of thirteen persons. The woman was infected with small pox, and on the fifth day after breaking out I saw her for the first time. It was a case of confluent small pox, the centers were depressed and filling with pus.

The family consisted of the father, mother, a widow lady, and ten children. The father had had vaccine disease twenty-five years before; the mother and widow each thirty years before, and three of the children had been vaccinated one year previously, but one of them did not succeed. This left eight children in the family and the pauper's infant exposed to small pox without protection.

In addition to the family mentioned, there was a family visiting at the sick house consisting of father and mother and six children. Of this last family the father and mother were protected by vaccina, the six children unprotected.

On the morning of the fifth day after I first saw them I procured vaccine virus and vaccinated all that had been exposed.

None of those protected by vaccina had small pox. The father, who had had vaccina twenty-five years previously, had the initiatory fever, which was followed by two or three pox, which aborted, and he had no secondary fever. One of the children that had vaccina one year previously, had varioloid, with secondary fever. None of the other protected members of the family were sick.

The eight unprotected children of the family were well when vaccinated, and the vaccina disease progressed favorably

from five to seven days—that is, the first was attacked with small pox on the fifth, and the last on the seventh day after vaccination.

The vaccina disease progressed during that time favorably, and, as far as I could perceive, without modification from the incubating variola, but from the invasion of the variola fever the vaccina pustules remained stationary until the subsidence of the secondary fever, when the partly formed vaccina pustules proceeded to maturity, each case having a fully developed vaccina pustule.

In one case a small pox pustule impinged on a partly formed vaccina pustule, which vaccina pustule matured apparently as perfectly after the small pox declined as any case of uncomplicated vaccina.

The family of six children mentioned as visitors were vaccinated on the fifth day after exposure, and they all had vaccina and no small pox or varioloid.

In another family a case of small pox occurred, in which was a child unprotected. I vaccinated the child on the third day after the eruption of small pox, and the child stayed in the room with the sick man all the time. The child had vaccina unmodified, the protection being as if it had had vaccina a year before. In this last mentioned family the man had had vaccina thirty years previously, and the woman fifteen, and neither of them were sick.

These cases, I think, show conclusively that the protection of vaccina does not run out every seven, or fourteen, or twenty-one years, or at any septennial period. Three of the cases showing the protection to be complete for thirty years, one complete for fifteen years, one partial for twenty-five years, and one partial for one year. In addition to these, my own protection was vaccina, which was of 32 years standing.

None of these cases of complete or partial protection had been revaccinated, except my own. Now these are not many cases to base an opinion upon, but they correspond with an observation of twelve or fifteen years, during which time I

have seen many cases that were protected by repeated vaccinations exposed to small-pox, not one of which were disturbed by the disease.

For the last ten years, I have been somewhat careful to observe the proportion of cases in which a second vaccination takes effect, and my judgment is that about one-third of the second vaccinations produce pustules more or less perfect, the constitutional disturbance being always less than in the first cases. Not more than one in fifty of my third vaccinations produce any effect.

Suppose that as long as there is any susceptibility to variola in the system, vaccination acts on that susceptibility and destroys it, (which I believe,) it is evident that revaccination should be resorted to until it would have no more effect, which would be the evidence that the susceptibility was destroyed.

This is the point that I wish especially to present to the profession, that full protection can be obtained by vaccina, and when that protection is secured, it can be certainly known by the test of revaccination.

Assuming that the foregoing is true, it follows of course that the physician, when consulted as to the propriety and efficacy of vaccination, should give a more decided opinion in its favor than is commonly done. The certainty of full protection should be represented to be fully equal to having had small-pox itself, and not, as is often the case, represented as a good sort of precaution which will, when put to the test, disappoint you.

It is the duty of the physician to give such an opinion to the public as will establish perfect confidence in the remedy, so that in seeking it they will not have to "hope against reason," as many of them express it, and when that confidence is established in the mind of the public, vaccination will not be neglected as it has been, but will be sought and demanded by the people with the earnestness that its importance justifies.

FOREIGN BODIES ON THE CORNEA.

BY E. L. HOLMES, M. D., of Chicago.

This subject has been considered of so much importance, that a chapter of greater or less length is devoted to it in almost every systematic work upon diseases of the eye. Although the works of eminent oculists are open to the profession, and an article upon the subject may perhaps seem to the readers of the *Journal* uncalled for, there are several reasons, why we wish to offer a few remarks for the consideration of those who attempt to remove foreign substances from the cornea.

We have met with several cases in which physicians had failed to detect the presence of minute particles embedded in the cornea, and had treated the eye with irritating collyria as in catarrhal ophthalmia. We have also met with three cases, in which an eye had been ruined by awkward attempts to remove particles of steel from the cornea. Nearly all our standard works on ophthalmology allude to cases of this kind. In every manufacturing community the number of patients who suffer from this little accident, and who apply to physicians for aid, must be quite large. We have reason to believe that the aggregate number of those who have lost an eye from the carelessness or inefficiency of physicians in treating these cases, is larger than many might at first suppose. Moreover there is a common idea among patients and even among physicians, that the surgical treatment of such injuries is too simple to require particular practice, or even a passing notice. While we are far from wishing to claim any undue importance for this subject, we deem the reasons above given sufficient grounds for introducing the subject at the present time.

Particles of almost every variety of hard substance have been found embedded more or less deeply in the cornea. There is probably no more frequent cause of this accident,

however, than the forcible abrasion of steel in cutting stone or metals. Mechanics, stone cutters and masons are especially liable to this injury. Farmers, also, during harvest, suffer occasionally from the pressure of the minute barbs from grain becoming fixed upon the cornea. In fact every one is liable, in an infinite variety of ways, to this accident.

Whenever a foreign substance, however minute, is lodged upon the cornea, the patient usually experiences more or less pain, especially in the act of winking; the conjunctiva becomes congested, its enlarged vessels encroaching upon the cornea, the eye becomes exceedingly sensitive to light; ulceration commences around the foreign body, which is sometimes thus cast off. The pain and congestion are variable in degree in different cases. Difference of symtoms in cases apparently similar is often unaccountable. From the first our patient may suffer from violent pain and inflammation, which, unless the object is removed, may run its course with great rapidity, totally disorganizing one tissue after another; and yet the primary injury would seem less severe than in another case, where a larger particle, more deeply embedded in the cornea, would produce comparatively little irritation, after the lapse of several days, or even weeks.

A careful examination is sometimes necessary to detect particles upon the cornea, especially when they are concealed from view by peculiarity of color or pus and mucous collected around them. They are frequently so minute that practitioners with ordinary powers of vision are unable to discover them. Larger objects even sometimes escape notice. We have seen a patient with quite a large fragment of a common "bird seed" on the cornea, examined by several physicians, who failed to make a correct diagnosis. The concave surface of the fragment had become firmly attached to the tissues at the union of the cornea and selerotic. It was almost wholly covered with pus and mucous and was surrounded with a circle of enlarged vessels. The eye certainly presented in almost every respect the appearance of phlyctenular ophthalmia

and was so diagnosticated by the physicians present. They were much astonished, however, when the oculist in charge called for an instrument and with it quietly removed the offending body.

A satisfactory examination can usually be best made when the patient sits facing a window—the surgeon being between the patient and light. The light, however, should not be too brilliant. By directing the patient to rotate the eye in different directions the light will finally fall upon the cornea in such a way that a clear view of the object may be obtained. The same care is often requisite in examining certain minute and transparent ulcerations of the cornea. We call particular attention to this point, because physicians are often unable to detect either minute particles on the cornea or ulcerations, simply from failure in placing the patient in a suitable light.

The little operation necessary in these cases, trifling as it may appear, is one which in many instances should not be undertaken by any physician, unless he possesses keen vision and a steady hand. The patient should be placed in a good light, the head resting against a firm support. We often prefer to stand behind the patient seated in a chair facing a window. In this way the head can be securely supported, while the light will fall upon the cornea most favorably for the operation. If the accident is recent and the foreign substance is not too deeply embedded in the cornea, it can be readily removed with the assistance of a bit of stiff paper or cloth folded in a convenient form. We often remove such substances with a slender piece of dry pine, sharply pointed at one end. A cataract needle can be used advantageously for the same purpose. A good magnet will sometimes remove particles of iron and steel.

But very frequently the removal of these particles will be found by no means so easy. They are often held with surprising tenacity deep in the cornea. A sudden "dive" at them with any sharp instrument will not be sufficient. The lids must be kept open and the globe held with the fingers of

one hand, while with the other a cataract needle or some similar instrument is employed to remove the foreign body. It must be deliberately cut from its position. "It is sometimes necessary to pass the point of the instrument under the particle of iron or stone so as to lift it out of the cornea: and so firmly is the foreign body grasped in many instances that even this plan will not succeed, unless the portion of cornea external to the foreign particle is first divided and then pressure applied in the way described." It should be remembered that in some cases it is perhaps impossible to remove particles deeply seated in the cornea without perforating this membrane. We have seen so skilful and delicate an operator on the eye as M. Desmarres, of Paris, perforate the cornea after making several attempts to remove a particle of steel, although the patient sat with wonderful fortitude through the painful operation. Fortunately, the wound healed without injury to the eye.

In all cases where the simple means first described are insufficient to detach foreign bodies from the cornea, we deem it safer to perform the operation while the patient is under the influence of some anæsthetic, since few patients have perfect control over the eye when the cornea is touched, however slightly, with any cutting instrument. Every one must appreciate this difficulty on the part of patients, who has made many attempts to *enucleate*, as it were, foreign bodies from the cornea.

Occasionally fine fragments of metal will be so deeply implanted in the cornea, that great dexterity and care are required to avoid pushing them through into the anterior chamber. In such extreme cases, M. Desmarres recommends the use of a very small lance-shaped knife, the point of which is to be passed obliquely through the cornea and held in such a manner that the flat surface in the anterior chamber shall rest against the concave surface of the cornea behind the object. With this precaution a cataract needle can be used with no fear of the accident just mentioned.

It should be remembered that after the removal of certain metalic particles, an oxide sometimes remains incorporated in the cicatrix. This oxide should always, if possible, be cleared from the wound with the suitable instrument, since otherwise an opacity may render vision more or less obscure.

The subsequent treatment of these cases is almost always quite simple. Usually nothing is required, when there is merely a minute abrasion of the epithelium. In severer cases it is well to keep the eye closed for a short period, and to apply cooling lotions externally. But it should be borne in mind that, even with patients apparently in perfect health, the most minute and superficial abrasions of the cornea will sometimes not heal for weeks or even months. We have seen patients who were obliged to shade an eye from ordinary light for several weeks and yet there was no congestion of the tissues, and few physicians would be able to detect the very minute ulceration produced by the foreign body. We have always found mild, stimulating collyria and rest with closure of the eye to succeed finally in accomplishing a cure. Wherever the injury of the cornea is very deep it may become necessary to treat the case with more care, as in cases of serious ulceration of the same part.

MIASMATIC HÆMATURIA.

BY J. LOW, M. D., McGregor, Iowa.

Case—March 19, 1860, was called to see Mrs. F., aged 20, (United States); mother of one child, two years old. For a fortnight past has complained of general *malaise*, the most marked symptoms being dizziness and an increasing debility. A little after midnight of night before last she was attacked simultaneously with diarrhœa and frequent and painful micturition. The diarrhœa ceased yesterday; painful

micturition continues still. About noon yesterday the urine began to be bloody and continued so till evening. Through the night there appeared to be no blood, but a copious deposite of the urate of ammonia. Through the day yesterday patient was restless and had a good deal of pain in the lumbar and pubic region, whatever position she assumed. Last night she was pretty comfortable, but could lie only on her back. She informs me that she had repeated attacks of intermittent fever last summer; has never considered herself robust, although now her complexion is clear and she seems well nourished. Present symptoms—Painful and frequent micturition, urine bloody, skin and pulse natural, tongue flabby, coated toward the root.

Thinking the disease to be as above headed, prescribed quinia, three grains every four hours; opium, one grain every alternate four hours; slippery elm water for a drink.

March 20, 10 A. M.—Urine still bloody; calls to void it less frequent; can lie on the side with less discomfort; no perspiration; opium given but twice, quinia instead by mistake; bowels not moved since yesterday morning; give two comp. cath. pills; continue opium and quinia, as directed yesterday. 6 o'clock P. M.—Urine the same. Ordered eight grains Gallic acid every five hours; the opium and quinia, one grain of the former and two grains of the latter, in combination every alternate five hours. Repeat cathartic.

March 21, 9 A. M.—Considerably better; voided urine last evening free from blood; slept from 10 till 4 o'clock this morning; some bloody urine passed this morning, but with less pain; bowels moved twice; pulse natural; appetite fair; suspend Gallic acid unless next urine should be bloody; give quinia and opium, one gr. each, every three hours. 6 P. M.—Passed no bloody urine since morning visit; has slight increase of pain in lumbar region. Cont. rem.

March 22, 9 A. M.—Slept comfortably; passed bloody urine once this morning; pain continues in lumbar region; suspend quinia and opium; give Gallic acid, 4 grs., imme-

diately, to be repeated in five hours; apply sinapism to seat of pain.

March 23, 9 A. M.—No blood; lumbar pain relieved; micturition not very frequent, but painful; urine contains a yellowish sediment. Ordered ten grains bi-carb. soda every three hours.

March 24.—No blood; a very little sediment; a bearing down pain is experienced at the termination of urination. Ordered infusion of buchu.

March 26—Recovered.

The following febrile attacks I have noted as confirmatory of my diagnosis:

April 27—For two or three days Mrs. F. has had the usual precursory symptoms of fever, such as headache, backache, chilliness, loss of appetite, &c. Prescribed quinia and strychnine, and the symptoms vanished.

About the middle of June, similar symptoms appeared and were relieved by similar remedies.

Again, in the latter part of September, decided fever set in and continued without apparent intermission or remission (and this was the more common type of fever in this locality during the autumn) for three or four days, when it gradually subsided, under the use of antperiodics and tonics.

I may add that on the 6th of November Mrs. F. gave birth to a fine male child, being at the time of the Hæmaturia, as was then supposed, about six weeks advanced in pregnancy.

This is the only case that I have seen of the kind, and I should have been puzzled in making my diagnosis had I not seen mention made of the disease in the *New Orleans Med. News & Surg. Gazette.* In the Sept. number, 1859, of that journal there is a translation of a case reported in the *Havana Med. Journal.* In the Dec. number there is a case reported that occurred in Vicksburg, Miss., and in the January number for 1860 there are two communications from physicians in Louisiana treating of the disease and giving a few cases.

The writer of one of these communications has had expe-

rience with this disease for some three years, recognized it as marked intermittent fever, and always treated it successfully with quinia, astringents and counter irritation.

The author of the other is somewhat skeptical as to the miasmatic origin of the disease; thinks it is a new disease; has noticed it for about three years; has called it yellow fever, and his neighboring physicians have also considered it yellow fever. A large proportion of his cases have proved fatal, and he thinks the ratio of deaths has been about the same as in genuine black vomit.

In the *Oglethorp Med. & Surg. Journal*, for May, 1860, published in Savannah, Ga., there is an article on this subject; the writer thinks it is a new symptom or phase of an old disease; treats it, in the main, as intermittent or congestive intermittent fever; loses a large per centage of his patients; says the "prognosis is always unfavorable."

This is all, so far as I know, of the written history of this disease. If any later cases have been reported in the above mentioned journals, I have not seen them, as I have not had access to the journals.

I have seen nothing on the subject in the *Chicago Medical Journal*, although I doubt not some of your readers have had cases in their practice.

PROCEEDINGS OF THE MEDICAL ASSOCIATION OF HANCOCK CO., ILL., JAN. 16, 1861.

The Association met. The President being absent, on motion Dr. H. Judd was called to the Chair. The proceedings of the last meeting were then read and approved; after which several very interesting cases of Diphtheria and Pneumonia were reported and discussed.

Drs. Pierson, Hall and Spitler were then appointed delegates to the American Medical Association, which will hold its next meeting in Chicago in June next. Drs. Hay, Boude and

Ellis were appointed alternates. Drs. Hollowbush, Hall and Powers were appointed delegates to the State Medical Convention, which meets in Jacksonville in June next. Alternates, Drs. Hoffman, Coolidge and Ferris.

Two members who were appointed on a Committee at the July meeting, to memorialize the Legislature to pass a Registration act, having failed in performing the duties of the Committee, Drs. Judd and Hall were appointed as substitutes, to act in conjunction with the Secretary on said Committee.

The President then appointed the following members to prepare and read essays at the next meeting of this Association, viz: Dr. Coolidge, on Hydrocephalus; Dr. Hall, on Diphtheria; Dr. Hollowbush, on Uterine Diseases; and Dr. Spitler, on Puerperal Convulsions.

On motion, it was ordered that the Secretary forward copies of the proceedings of this meeting to the offices of the *Chicago Medical Journal*, and the Hancock County papers for publication.

On motion, the meeting then adjourned to meet in Carthage on the third Wednesday in April next.

A. SPITLER, Secretary.

ABSTRACT OF THE PROCEEDINGS OF THE WILL COUNTY MEDICAL SOCIETY,

AT ITS ANNUAL MEETING, FEB. 13, 1861.

The Society met, agreeable to order, at 2 o'clock P. M. of Wednesday, Feb. 13th, 1861, in the office of Dr. F. K. Bailey, Joliet. Dr. Bailey, President, in the Chair.

The following gentlemen were elected as officers for the ensuing year:

President—Dr. A. W. Heise.

Vice President—Dr. E. K. Willard.

Secretary—Dr. G. S. Thomas.

Drs. F. K. Bailey, P. B. McKay and M. J. Johnson were elected Censors.

The following are at present members of the Society:

Drs. W. Danforth, J. R. Casey, F. K. Bailey, A. W. Heise, G. W. Thomas, Joliet; E. K. Willard, P. B. McKay, S. M. Abbot, A. W. Bowen, Wilmington; O. Corben, Plainfield; Prof. A. L. McArthur, (Lind University) Joliet; Drs. J. F. Dagget, Lockport; H. Folke, Wilton; M. J. Johnson, E. H. Strong, Wilmington.

Dr. A. W. Heise read an interesting paper upon Placenta Prævia, which was listened to with much pleasure by all present.

Dr. P. B. McKay was appointed to read an essay before the Society at the next meeting.

On motion, adjourned to meet at 1 o'clock Wednesday P. M., March 13th, at the office of E. K. Willard in Wilmington.

A. W. HEISE, President.

G. S. Thomas, Secretary.

AMERICAN MEDICAL ASSOCIATION.

The fourteenth annual meeting of the American Medical Association will be held in Metropolitan Hall, city of Chicago; commencing on the *first* Tuesday in June next.

Each regularly organized Medical Society is entitled to send one delegate for every ten of its members; and each Medical College is entitled to two delegates. It is desired that the names of delegates should be forwarded to the undersigned, as soon after their appointment as practicable.

H. A. JOHNSON, *Assist. Secretary.*

Chicago, Feb. 1st, 1861.

EDITORIAL.

Atropine.—Dr. Max Maresch, Physician to an Insane Asylum in Vienna, reports a number of cases of epilepsy treated by this powerful medicine. He states that the results of observations both by himself and others are such as to render this remedy worthy of serious attention. He recommends five drop doses of a solution containing one grain in a hundred drops of rectified alcohol. Given fasting, and from the subsequent meal coffee, tea and chocolate to be excluded as being incompatible. Treatment from sixty to ninety days; then an interruption of thirty or forty days, then continue as before.

Fluid Extracts.—When properly prepared, this class of remedial preparations prove very convenient and efficacious; but they are so often slovenly and carelessly separated, or entirely substituted, that much caution is requisite in their use. Intelligent druggists have assured us that the published methods of preparation are evidently in many cases, simply subterfuges for the sale of mere empiric mixtures. Dr. Samuel Percy, of New York, reporting to the State Medical Society, observes: "Chemical analysis has proved in the first place, that some of them are almost wanting in medicinal powers; that others vary very much in the amount of active ingredients contained in preparations made by the same manufacturers; that the active ingredients vary in amount in that drawn from the top and that from the bottom of the bottle; that many of them contain the nutritive elements of the plant in large quantities, which must soon cause decomposition; that decomposition has taken place in a great many of them, is proved by the presence of the confervæ growing on

them." Similar objections might be urged against all extracts. It is a well known fact that even opium, in years when it is most freely afforded by the plant, has the usual proportionate amount of morphia reduced to the merest trace. This even when it is prepared with the greatest caution. The pure alkaloids should be preferred rather than any, except a *proved* extract.

Poisonous Candy.—Two cases, in one family, have recently come under our observation of quite severe symptoms of irritant metallic poisoning, from eating the richly colored candies offered for sale in the shops. The yellow colored candy (probably from the presence of orpiment) appears to have been the active agent. Cannot measures be taken to prevent this dangerous practice? It is well known that children are liable to similar attacks from sucking off the paint from their colored toys.

Tallman's Adhesive Plaster.—Our subscribers will find this article, (see third page of the cover,) a very convenient one for general use. It possesses evident advantages over the form previously commonly employed.

Books and Pamphlets Received.—DIPHTHERIA—The Fiske Fund Prize Essay; by D. D. Slade, M. D. MIASMATIC FEVER; by C. A. Logan, M. D. CONSUMPTION; by Prof. Lawson. The MOVEMENT COURSE; by Chas. F. Taylor, M. D. PAINE'S INSTITUTES OF MEDICINE, REPORT OF LONGVIEW ASYLUM, O'REILLY ON THE PLACENTA, &c.

We shall endeavor to notice these works respectively in the ensuing number.

Confidential.—A long list of arrearages has accumulated upon our books. Indeed so huge that the very idea of transcribing the items, in the shape of individual bills, causes the dexter arm of the Junior Editor, albeit accustomed to constant exercise, to twinge with rheumatic anticipations. Neverthe-

less, the printer's pay-day comes around monthly, certain as an inexorable fate. Will our subscribers aid us by promptly responding to this covert insinuation? Enable us to abbreviate the long list, and spare us large extra expenditure for clerk hire and postage—not to speak of that expense to which our finer sensibilities are always put by either writing or presenting the individual dun. We only breathe the suggestion over the wide field of our subscription list, as the sower scatters gently wheat upon the prairie, trusting it will return in full sheaves after a *few* days.

Diphtheria.—We regret to say that in the mortality report of Chicago, to be found on another page, we are compelled to disbelieve the item with reference to Diphtheria. The regular practitioners of the city are not responsible for even a moiety of the deaths under this head. But the quacks of all shades find this a convenient receptacle in which they can hide their fatal cases of croup, scarlatina, bronchitis, &c., &c. We repeat, Diphtheria is not epidemic, and sporadic cases are sparse and rare.

Time.—Every effort is being used to bring the *Journal* "up to time," but, practically, this has proved more difficult than supposed, when we somewhat rashly promised a speedy accomplishment of this desirable object. The prospect is now good for the next or ensuing month.

War.—Prof. McDowell, in his Valedictory at St. Louis, a few days since, proposed to go South and join the seceders' army as a surgeon. We trust he will have no occasion for carving his brethren of the *National* Med. Association.

—Through the kindness and liberality of Dr. A. McFarland, Supt. of the State Insane Asylum, we are enabled to mail with the present number a copy of the valuable Annual Report of that Institution. It contains matter of permanent interest.

Popliteal Aneurism.—Our exchanges chronicle quite a number of cases of popliteal and other aneurisms radically cured by compression. Prof. Blackman records a recent case where digital compression proved strikingly efficient. It appears to be unnecessary that pressure should be employed more than a few hours daily. The consolidated tumor left behind gradually shrivels away after the disease is cured. The results are very encouraging.

ILLINOIS STATE MEDICAL SOCIETY.

The subscriber respectfully requests the members of the Society and the profession at large, to assist in accomplishing the object for which the Special Committee on Diseases of the Eye was appointed.

Reports of Ophthalmic cases and papers upon any subject in this department of medical science are solicited.

The Committee particularly requests papers upon the peculiar causes of conjunctival inflammation in different sections of Illinois and the adjoining States; as also the history of cases of sympathetic ophthalmitis in one eye following injuries, and chronic inflammation of the iris and choroid of the other eye.

It is hoped the profession generally will take interest in this important subject and forward all communications to the Committee, before May 1, 1861.

E. L. HOLMES, Chicago.
P. O. Box 2175.

Communications.—All communications for insertion in the Journal, or on business matters connected therewith, may hereafter be directed to the Junior Editor,

DR. J. ADAMS ALLEN,
Box 4458, Chicago, Illinois.

GRADUATES IN RUSH MEDICAL COLLEGE.

SESSION 1860-61.

STATES.		THESES.
Illinois	Chas. Bunce	Hydrophobia.
Wisconsin	Allen S. Barndt	Intermittent Fever.
Wisconsin	Wm. C. Brown	Menstruation.
Illinois	Sidney S. Buck	Tubercles.
Illinois	Benj. H. Bradshaw	Typhoid Fever.
Connecticut	Henry S. Blood	Advancement of Med. Science.
Illinois	E. A. Clark	Inflammation.
Iowa	D. M. Cool	Repair of Fractures.
Nebraska	Thos. J. Dunn	Hysteria.
Indiana	Edward C. De Forest	Diphtheria.
Illinois	M. M. Eaton	———
Indiana	Geo. Egbert	Dyspepsia.
Indiana	Wm. B. Graham	Scarlatina.
Ohio	Henry J. Herrick	Insanity.
Maine	Zenas P. Hanson	Mental Influence.
Illinois	Clinton D. Henton	Blisters.
Iowa	Ezekeil Keith	Diphtheria.
Michigan	Jno. T. Keables	Tuberculosis of Liver.
Indiana	Enoch W. Keegan	Continued Fever.
Indiana	Abner D. Kimball	Hæmoptysis.
Iowa	Robert M. Lackey	Local Hysteria.
Illinois	Z. James McMaster	Water.
Illinois	James M. Mayfield	Science of Medicine.
Iowa	Henry H. Maynard	Pernicious Fever.
Illinois	Richard E. McVey	Circulation of Blood.
Illinois	John Murphy	Natural Labor.
Indiana	Samuel C. Owen	Placenta Prævia.
Illinois	Allen M. Pierce	Opium.
Indiana	Henry V. Passage	Pneumonia.
Illinois	Madison Reece	Strychnia.
Wisconsin	E. Fred. Russell	Blood.
Indiana	Edward P. Talbott	Acute Dysentery.
Illinois	Chas. B. Tompkins	Arsenic.
Illinois	Theodore W. Stull	Responsibilities of Medical Students.
Indiana	Israel B. Washburn	Osteology.
Indiana	O. G. Walker	Pneumonia.

HONORARY DEGREES.

Robert C. Hamill, Chicago; Theodore Hoffman, Niles.

MORTALITY OF CHICAGO FOR JANUARY, 1861.

DISEASE.	NO.
Brain, Inflammation of	1
" Congestion of	3
Convulsions	10
Hydrocephalus	1
Delirium Tremens	1
Teething	17
Mumps	1
Diphtheria	27
Croup	15
Asthma	1
Pneumonia	9
Consumption	35
Apoplexy, Pulmonary	1
Cardiac Disease	3
Enteritis	2
Cholera, Infant	5

AGES.	NO.
Under 1 year	29
Between 1 and 5 years	5
" 5 " 10 "	12
" 10 " 20 "	8
" 20 " 30 "	8
" 30 " 40 "	25
" 40 " 50 "	18
" 50 " 60 "	6
" 60 " 70 "	3
" 70 " 80 "	2
Unknown	5
Still Born	3
	174

Croup.

AGES.	NO.
Under 1 year	3
Between 1 and 5 years	10
" 5 " 10 "	2
	15

DISEASE.	NO.
Dysentery	1
Parturition	1
Metritis	1
Puerperal Fever	1
Dropsy	7
Old Age	3
Burns	3
Intemperance	1
Typhoid Fever	5
Scarlatina	2
Erysipelas	1
Still Born	3
Violence	3
Unknown	10
	174

Consumption.

AGES.	NO.
Betw. 1 and 5 years	2
" 5 " 10 "	1
" 10 " 20 "	2
" 20 " 30 "	4
" 30 " 40 "	16
" 40 " 50 "	10
	35

Diphtheria.

AGES.	NO.
Betw. 1 and 5 years	19
" 5 " 10 "	6
" 20 " 30 "	1
Unknown	1
	27

Deaths in the different Divisions of the City, divided as follows:

North Division	54	West Division	59
South "	53	Not stated	7

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ORIGINAL COMMUNICATIONS.

APPLICATION OF GUTTA PERCHA TO CLUB FOOT DRESSINGS.

BY R. L. REA, M. D.,
Prof. of Anat., Rush Med. College.

Mrs. —— was confined with her first child Nov. 5, 1860. The labor was natural, and she had a safe and satisfactory getting up.

The child I soon noticed, however, had the left foot deformed, and found upon examination it had that form of Club foot known as Talipes calcaneo-valgus. The foot was drawn outward and upward, the bottom being nearly parallel with the limb and very much everted.

I was somewhat perplexed as to the best method to pursue; for, after operating, it seemed to me, that owing to the tenderness of the skin, it would be next to impossible to retain any of the ordinary dressings with sufficient constancy to warrant

the expectation of much from them. The probability that the difficulty would rather increase than diminish by time, and the impressible parts be assuming permanent forms, decided me to adopt some temporary dressing in order to prevent, as far as possible, an increase of the deformity.

Gutta Percha suggested itself, from its perfect flexibility and adaptiveness when softened by heat, and the more I reflected on it, the more I became convinced that that dressing would answer most admirably the intended purpose, and perhaps supersede the necessity of an operation altogether.

Accordingly, after waiting until the mother who had not known it, had so far recovered as to prevent any unfavorable effect from the cheerless news, I proceeded, Nov. 21, to dress the foot in the following manner:

I procured some Gutta Percha of the ordinary sheet kind as kept in the shops, one-eighth of an inch thick. Then, first cutting a pattern of paper, I formed two splints, as represented in the adjoining cuts:

Fig. 1.

They will be seen to consist of two half gaiters, which extend as splints up the leg almost to the knee, the gaiter por-

tions being large enough to almost completely embrace the foot when adjusted.

The splints were then softened in hot water until perfectly flexible and yielding. The limb being well oiled, they were applied and accurately moulded to the parts; the foot was then bent to occupy the desired position, and while held firmly thus, was dipped in cold water, which, rapidly cooling the splints, fixed the limb securely in position indicated.

I then removed the splints, and, after drying, lined them with several thicknesses of canton flannel, when I re-applied them, fastening them carefully with the ordinary roller bandage.

This dressing was examined once in two or three days, to see that it was not chafing, and carefully re-adjusted, the limb at each examination being well bathed in cold water, followed by vigorous friction.

A week or ten days was sufficient to prove to me the wisdom of my course, a very manifest improvement being perceptible. As the mother got to understand the application of the dressings, they were taken off more frequently, and the cold water and frictions applied.

On Dec. 26th, from the natural warmth of the limb and the increasing strength of the muscles, I found it necessary to remodel and strengthen my dressing, which I did as represented in fig. 1 of the wood cuts, by the addition of another thickness of Gutta Percha applied to the outside of those splints I had used, which was readily accomplished by warming the two and applying them together, when they adhered firmly.

After softening the splints and adjusting them to the limb, I bent the foot beyond the natural straight shape of the limb, approximating that of Talipes varus, and after cooling, fixed, padded and applied them as before. These were worn for six weeks, when the foot was found to be perfectly straight and natural in every particular, so much so that the most careful examination could not distinguish the affected foot, when the

dressing was discontinued. It is now two months since the dressing was used, and there is not the slightest tendency to return.

It might be proper to mention that the characteristic attendant of flattening of the sole of the foot, from sinking of the plantar arch, was present in a very marked degree, and was removed with the rest of the deformity.

These splints never gave rise to the slightest abrasion or irritation, taking as they did the exact mould and shape of the limb, giving equable pressure at all points. In addition it has another most desirable quality, that of cleanliness, not absorbing moisture, and can be cleansed without difficulty.

This dressing for cases to which it is applicable, it occurs to me, has this very obvious merit: it allows the surgeon to apply effective restraint to the distorting muscles, much earlier than he could otherwise do, owing to the tenderness of the infant skin. This early application of restraint gives the surgeon the paramount advantage in time, before the yielding and less resisting parts, become fixed in their abnormal shape, for it has been abundantly shown that textural alterations almost, if not always, occur subsequent to birth, and the earlier the remedial applications, the more confidently may satisfactory results be expected

This dressing, it seems to me, would be quite as applicable to cases where the deformity was so great, or permanent, as to render resort to the knife necessary. They could be modified in shape so as to embrace any required part of the foot, or strengthened by an increase of thickness, either by adding layers externally or having it manufactured of the right strength, so as to adapt them to any required case. Or, they could be strengthened by the addition of conforming splints of steel or wood externally, which, while they would still retain their most desirable feature of uniform pressure, would give the additional strength of these substances.

Surgical Anatomy.—Writers describe four forms of club foot, according to the muscles acting to cause the defect, and

the usual monotony in the study of the muscles is somewhat broken up in the group of the leg and foot, inasmuch as they are the active agents in producing this unsightly deformity. The most simple of these forms is Talipes equinus, in which the heel is raised from the ground by the rigid contraction of the Gastrocnemius and Soleus muscles, the weight of the body being thrown forward on the ball of the foot. It is remedied by dividing the tendo Achillis, (the tendon of those two muscles,) an inch above its insertion into the Os calcis.

Probably the most rare variety is the Talipes calcaneus, in which, by a contraction of the extensors, the toes are raised and the weight of the body is thrown on the heel. The Extensor, Prop. Policis, Et. Longus Digitorum, Peroneus Tertius and Tibialis Anticus, are the muscles acting wholly or in part to produce this deformity. They may be divided after they pass beneath the annular ligament, recollecting the situation of the Dorsalis Pedis artery and Anterior Tibial nerve, between the tendon of the Extensor Proprius Policis and the innermost tendon of the Extensor Long. Digitorum; the nerve lying to the outside of the artery.

Talipes valgus, the deformity present in the case I have described, consists in the turning of the foot inward by the action of the Peroneus Longus and Brevis muscles, so that the weight of the body rests on the inner side of the foot and ankle, and is seldom a simple form, being most frequently combined with a greater or less degree of T. calcaneus, forming what might be called T. calcaneo-valgus. The sole of the foot is usually flattened, from flaccidity of the plantar ligaments allowing the plantar arch to give away. This form is remedied by division of these tendons, (Peronei), which can be most readily and safely done below and in front of the outer malleolus upon the outer side of the Os calcis, where they both lie together and can be divided with little difficulty or danger.

By far the most common variety is the Talipes varus, in which the foot is inverted, so that the weight rests on the

outer side of the foot and ankle, and, as we find in T. valgus, is seldom a simple form, being most frequently combined with T. equinus, the foot thrown forward, the weight coming on the anterior outer side of the foot.

The Tibialis Anticus, passing as it does in front of the inner malleolus, to be inserted into the adjacent portions of internal cuneiform, and metatarsal bone of the great toe, on their inner sides, by its action will elevate the inner border of the foot, while the Tibialis Posticus passing behind the same malleolus to its insertion in the inner extremity of the Scaphoid, will twist the foot inwards and upon itself, and acting with the Flexor Longus Digitorum, throw the foot forward, causing it to rest, as it does most commonly, on the anterior portion of its outer side.

The plantar fascia is in most cases contracted, and will need to be divided across. Section of the tendon of Tibialis Anticus may be made just previous to its insertion, though the tendon may be distinguished more readily nearer the annular ligament, as it flattens out very much just before it is inserted. Tibialis Posticus may be divided a half inch below and in front of the point of the inner malleolus, being careful not to allow the point of the knife to wound the Internal Plantar artery, as it passes along the inner margin of the sole of the foot. Or this tendon, as well as that of the Flexor Long. Digitorum, may be divided, as they pass close behind the inner malleolus, lying together, and in front of the other important tissues.

There will be very many combinations of the actions of these, and other muscles, producing the different deformities found in Club Foot—to distinguish which, must be left to the intelligence and discrimination of the Surgeon.

RETROVERSION OF THE UTERUS,

WITH A DESCRIPTION OF AN INSTRUMENT DESIGNED FOR ITS REPOSITION.

BY H. W. JONES, M. D.

In December of 1860, I was called to see a lady who gave me the following history of her case:

Married at nineteen, she was soon pregnant, and, after a severe fright, had aborted at the third month Previously had had excellent health, but since the summer of 1859, when the accident occurred, she had experienced much suffering in the back and pelvic regions, being at no time entirely free from pain. Leucorrhœa was abundant, of a "white of egg" appearance, and her menstrual returns were dysmenorrhœic in the extreme. Her symptoms were all aggravated at such times, and though she had never been willing, before, to submit to local treatment, she now desires it. The bowels are very costive, and urination is required "at least every half hour."

An examination by touch detects the os uteri just within the vaginal orifice, pressing against the urethra, patulous and sensitive. The body of the uterus fills the sacral cavity and is slightly movable upon pressure. The parts are everywhere very sensitive. The speculum discloses the cervix tumefied and excoriated, the os being filled with tenacious mucus, and bleeding at the touch of the sponge. No tumors can be detected. The sound enters the uterine cavity nearly three inches, and causes pain, when in contact with the fundus, in the attempt at reposition.

A continuous recumbent position is advised, with cool ablutions of the back and pubic regions, a continued mercurial alterative, and the local application of nitrate of silver once in five days. Saline laxatives are to be used *pro re nata.*

Jan. 20th—An examination now finds the cervix less swollen and sensitive, the excavations healed, and the os smaller,

discharging but little mucus. The body of the uterus and the walls of its cavity are much less sensitive. I attempted, at this visit, to replace the organ, while the patient was upon her knees and elbows. Both finger and sound were used perseveringly, but with no effect upon the uterus.

I then devised the instrument, (here shown at half size) which was made from my drawings by Messrs. Degenhardt & Loewe, of this city. It consists of a handle, shaft and stem, the latter moving in the arc of a circle in either direction and governed by a screw at the end of the handle.

The mechanical principle involved is the same with that used at present in the apparatus for turning the guitar.

The stem may be placed at any desired angle with the shaft and introduced as in the use of the sound. Then, by means of the screw, the uterus may be gently and completely replaced in all ordinary cases.

In the case related, this *Uterine Retractor* was used four times at intervals of forty-eight hours, firm, but careful, pressure being exerted and persevered in for several minutes. Previous to its withdrawal, I introduced a colpornyter into the *rectum*, which was left in situ for three or four hours, and then removed by the patient herself.

The effect of these measures was hardly perceptible at first, but on the third occasion of their use, the uterus rose to the sacral promontory, and on the fourth a complete reposition was effected. More or less pain always attended the operation, but the patient declared that it was less than I had caused when attempting the restoration, by Simpson's sound. After the uterus was found to be in place, the colporynter was passed into the *vagina* and was worn constantly until the next meustrual period, which occurred with comparatively slight discomfort.

While the local symptoms have thus been almost entirely removed, a few applications of the silver have been made, with a view to a correction of the slight hypertrophy remaining, and with the effect of curing the leucorrhœa.

In this case, I suppose slight adhesions of opposed peritoneal surfaces must have existed in order to account for the difficulty with which reposition was secured. The promontory of the sacrum does not encroach upon the superior strait, nor is the vaginal wall at all shortened. At present there seems no inclination on the part of the uterus to return to its misplacement.

It seems to me that the instrument described possesses great advantage in the following points:

1st. Its great power, the resultant of the combination of the screw and lever principles.

2nd. Its security against injury of the uterine cavity.

3rd. The directness of motion communicated to the uterus, the center of motion being *within the vagina*, and *at the very os uteri itself*.

4th. The ease with which the exact position of the uterus may be ascertained at any stage of its progress, by the finger held against the slight projection of the stem through the axle into which it is screwed.

REPORT OF SURGICAL CASES.

BY GEO. K. AMERMAN, M. D.,
One of the Attendiag Surgeons to the City Hospital.

CASE I—*Compound Fracture of the Tibia, extending into the Knee Joint—Extensive Suppuration of the Joint—Recovery with a useful limb.*

M—— M——, aged 20, occupation a tinsmith; on the 19th of Nov., 1860, whilst engaged on the roof of a one story building, his foot slipped and he fell about twenty feet, striking, first on the right foot, and then, falling over on the same side. He was immediately carried out to an adjoining building and everything comfortably arranged by his fellow workmen until my arrival, about an hour after the occurrence of accident. I found his injuries confined to the right leg, with the exception of a scalp wound so trivial as not to require any attention. The injury of the leg consisted of a compound fracture of the tibia, oblique in its direction from below upwards, and before backwards, beginning, anteriorly, just below the tubercle, and terminating in the middle of each tuberosity above, so that without extending through the whole diameter of the bone, it formed a communication between the joint and an external irregular opening just below the tubercle. The cavity of the joint was filled with blood; the patella, separated from the condyles of the femur and drawn upward by the action of the quadriceps extensor. The wedge-shaped piece of the tibia, separated a considerable distance from the body of the bone and tilted forwards and upwards by the action of the ligamentum patella. The hemorrhage, quite free from a wound of one of the articular arteries, requiring considerable pressure over the wound to control it. A posterior straight splint was adjusted, with a roller, the patient placed in an express wagon and removed to his residence, a distance

of three miles, before any dressings proper were applied. The first dressing employed was simply a fracture box, so arranged that free access could be obtained to the wound and the parts easily examined. The only tendency to displacement was a tilting forward of the fractured piece of the tibia, which proved very difficult to overcome. Severe constitutional reaction, with intense pain in the joint, supervened the day following the injury, which were met by full doses of opium internally, and the local application of the arnica and lead lotion.

Nov. 23—Pulse 100, skin hot, leg œdematous, joint immensely swollen and painful. Ordered a cathartic of Pulv. Seidlitz, and after its operation, to take Tr. Opii Camph., Spts. Nit. Dulc. aa ℥ i, Tr. Digitalis ℥ i, a teaspoonful every three hours. Continue the same local treatment.

Nov. 27—Constitutional excitement entirely subsided; pulse 90. On the 25th poultices were substituted for the arnica and lead lotion, since which time there have been a few discharges of unhealthy pus from the external wound. Pressure over the joint increases the discharge. The parts surrounding are œdematous and reddish, exhibiting a tendency to erysipelas. Continue the poultices, in place of iron mixture give Quin. et Ferri, full diet, and beer.

Dec. 10—The purulent discharge continued abundant, but of a more healthy character, until night before last, when a large abscess, situated five or six inches above the knee, on the outer side of the thigh, opened spontaneously, and discharged (according to the patient's statement) a quart of pus. Since then, the original opening on the tibia in front has ceased to discharge and is nearly closed. On introducing a probe into the opening above the knee, last formed, it readily passes into the cavity of the joint. The limb was now taken from the fracture box, a roller applied from the toes as far up as the seat of the fracture, a compress placed over the fragment, and the roller continued, applied lightly, as far as the upper part of the thigh. To this was added a posterior

straight splint, extending from the middle of the thigh to the foot, secured by a second roller. The same constitutional treatment as last noted.

Jan. 4—Since last date the discharge has gradually diminished. The original wound has entirely closed. The opening above the knee still patent and discharging a small quantity of healthy pus. There is no pain except on moving the limb. The fragment can be easily moved, producing crepitus. The same dressings reapplied and same constitutional treatment.

Feb. 20—All dressings removed, and the patient allowed to walk about, with the use of a cane. The opening above the knee entirely closed. The joint free from pain or tenderness in any part and capable of supporting easily the weight of the body. Flexion can be carried to nearly a right angle and extension is almost perfect. Either flexion or extension carried beyond a certain point produce pain. With the exception of a moderate swelling around the joint, due to inflammatory exudation external to its cavity, and a slight elevation of the patella, it presents the same appearance as its fellow of the opposite side, and I have every reason to believe that by frictions and passive motion, persevered in for a long time, it will be quite as useful.

The only point of interest in connection with the above case is, its favorable termination. Simple fractures, complicated with injury of a large joint, are always regarded seriously, and compound fractures extending into a joint in such a way as to seriously damage so important a part, have, in times past, been regarded of so grave a character as to demand immediate amputation. This question of immediate amputation for injury is always a difficult one for the surgeon to decide, and must necessarily remain so. But as there is a difference of opinion in the profession regarding the results of primary and secondary amputations, with, it seems to me, the strongest evidence in favor of a secondary operation, I am inclined to the belief that in all cases of doubt we should

attempt to preserve a member, and if we fail in this, then resort to an operation secondarily.

CASE II—*Extirpation of the Eye for Injury—Recovery.*

Mrs. A——, aged 31, of a nervous temperament, but in the enjoyment of good general health, first came under my charge in July, 1860. On the 4th of July, 1859, a piece of percussion cap, from a small pocket pistol, struck her left eye ball near its centre, with such force as to lacerate the cornea, and, as was supposed, burrying itself deeply in the organ. Intense pain and almost entire loss of sight were an immediate result of the injury. Several attempts were made to extract the foreign body, but as it was uncertain in what direction it lay, or how deeply it had penetrated, or even whether it was lodged in the eye at all, they were unsatisfactory and entirely unsuccessful. Some inflammation supervened, accompanied by excruciating pain in the eye, forehead and side of the face. Leeches, blisters and collyria, without number, were resorted to without benefit. The inflammation pursued a regular course, to the complete destruction of the organ—the pain becoming after a time intermittent and so intense as to require the administration of large doses of opium to procure any relief whatever. In July, 1860, one year after the accident, she came under my care. At that time her general health was considerably impaired, the remains of the injured eye in a chronic state of inflammation, and the sound one exhibiting occasional symptoms of sympathetic action. I advised the immediate removal of the diseased eye as the only safeguard against destructive inflammatory action being excited in the other, and on the 20th of July, assisted by Dr. C. J. Taggart, of Beloit, and Dr. Chas. G. Smith, of this city, I performed the operation of Critchett for extirpation of the eye, the patient being under the influence of an anæsthetic. Simple dressings of cold water were applied for two days, and then all treatment discontinued. Not an unfavorable symptom occurred, and in two weeks the parts were in an excellent con-

dition for an artificial eye. As regards the method of extirpation of the eye first recommended by Mr. Critchett, it is thus described in the January number of the *N. Y. Journal of Medicine* for 1859, by Dr. C. R. Agnew, Surgeon to the New York Eye Infirmary: "The first step is to act through the conjunctiva ocali by a circumsection of the cornea in a line with the insertion of the recti muscles; then to open the theca oculi close to the sclerotic implantation of the external rectus, and a little below its inferior border. All this may be done with a pair of toothed forceps and a pair of scissors, the latter so made as to cut by their very points, and yet so blunted as not to endanger the sclerotic. The sclerotic is easily recognized by its glistening non-vascular appearance; and, moreover, immediately upon opening the theca oculi, a watery fluid exudes. Having exposed the lower border of the tendon of the rectus, an ordinary strabismus hook is slipped under the muscle and a cut or two of the scissors soon severs it from its sclerotic implantation. Care should be taken to cut between the hook and the cornea, in such a manner as to leave as little of the muscle as possible attached to the eyeball. Having divided one rectus the other steps are easy. The strabismus hook when pushed in a line of the first section, naturally glides beneath the theca oculi and the next rectus. It is better to divide the superior rectus after the external, and then the inferior rectus, leaving the internal for the closing sweep of the scissors after the optic nerve has been severed. After dividing the muscles the cavity of the ocular sheath is fairly invaded and nothing remains but to divide the optic nerve and internal rectus. The division of the optic nerve is first effected by means of the straight, blunt scissors. They should be gently pushed between the temporal aspect of the theca oculi and the sclerotic, until their closed points impinge upon the optic nerve at its junction with the eye-ball. A gentle rocking motion and a slight separation of the blades will cause them to enclose the nerve-trunk, which may be cut at a single clip. When the optic nerve is not shrivelled by

atrophy its section communicates a decided jarring sensation to the operator's hand. As soon as the nerve is divided the eye-ball bulges forwards and may be easily tilted upon the side of the nose and the internal rectus divided. The exact moment of the section of the oblique muscles varies, depending upon the precision with which the scleroatic implantations of the recti are sought for. The section of the optic nerve is followd by a welling up of blood, which invariably ceases without requiring ligatures, a few moments after the eye-lids fall into position. And I would recommend that no attempts be made to free the sub-palpebral space from blood; the wounded parts will adjust themselves in such a manner as to control the hemorrhage."

Regarding the propriety of this operation Dr. Agnew says, in the same article above referred to, "There is no principle of practice in ophthalmic surgery so incontrovertible as that of the propriety of extirpating a diseased eye, with the aim of stopping sympathetic trouble in the fellow organ."

THE FORMATION OF COAGULA IN THE CIRCULATORY SYSTEM.

BY E. L. HOLMES, M. D., of Chicago.

(*Read before the Chicago Medical Society.*)

Few pathological changes offer a more interesting subject of study than the formation of clots in the veins and arteries. Although in many of our best standard works upon Pathology and "The Practice of Medicine" there is scarcely more than an allusion to the subject, yet it has for more than two hundred years excited the interest of accurate observers, some of the most distinguished of whom in our time have devoted much labor to its investigation and have contributed valuable additions to the literature of our science. Several important

facts have been established, by which curious phenomena in the progress of certain diseases can be satisfactorily explained. It is true the cases in which several of these phenomena are observed, are somewhat rare, yet they are liable to occur, and have without doubt occasionally fallen under the observation of every experienced practitioner. I regret that I have been able to consult so few original authorities and consequently cannot offer a paper so extended as I would wish or as the subject merits. I may mention the fact that I have found the *titles* of twenty-five articles relating more or less intimately to the subject, several of which are said to be monographs of great learning and research, prepared by writers whose authority stands prominent in medical science.

Virchow states that it had long been a popular idea that the blood under certain circumstances "curdles" in the veins during life; but that the attention of the profession was first drawn to the subject by Coiter, of Nuremburg, in 1572, and more particularly by Severinus in 1616. For two centuries physicians looked upon the fibrinous collections, found in the heart and larger vessels, as the cause of numerous diseases, especially of the lungs. In more recent times it had become almost universally the opinion that in all cases these fibrinous masses were formed after death. Within a few years, however, the subject has been carefully studied by pathologists, and the fact has been placed, perhaps beyond a doubt, that coagula may form in the heart and in different parts of the venous and arterial systems, and be the cause primarily or secondarily of the most grave consequences.

These coagula may be conveniently divided into three classes: 1st. Those originating in the heart and found in its cavities after death. 2d. Those formed in the veins and arteries, and caused by disease of those vessels in the locality in which they are found. And 3d. Wandering coagula, formed in certain localities of the circulating system and carried by the current of the blood to positions more or less remote from their origin. It is to this latter class that I wish particularly to call your attention.

1st. That the blood may coagulate in the heart during life is a fact, we think, now well established by the observations of the most reliable pathologists. Numerous cases are reported of obscure affections of the heart, arising in diseases in which the blood is known to contain an abnormal amount of fibrin. Subsequent examinations have revealed very firm yellowish concretions closely attached to the columnæ and valves, and presenting an appearance very different from that of the clots usually found after death in the heart and large vessels. That fibrin may collect in firm clot around the columnæ and valves is clearly shown by the facts not only that even in apparent healthy condition of the blood, the cardiac valves are sometimes found with quite large fibrinous concretions attached to them, but also that threads and other foreign substances, passed transversely through arteries of living animals, are soon covered with fibrinous concretions of considerable length. We see no reason why, in certain abnormal conditions of the blood, favoring these concretions, they may not form and attain a remarkable size.

For more extended discussions of this part of the subject, we would refer to the November number of the *London Lancet* for 1851, and to the January, March and October numbers of the same journal for 1852; also to page 404, vol XXII, of the *American Medical Journal.*

Somewhat different from what occurs in these cases is the more sudden coagulation of the blood in the cardiac cavities of women who have suffered from dangerous flooding in labor. If the blood taken from the vessels under such circumstances coagulates, as is said, with great rapidity, there is nothing improbable in the supposition that it may coagulate suddenly in the heart when brought almost to complete stasis, as it is in some cases of flooding from want of nervous power. It is well known that an attempt to raise such patients to an erect position is sometimes attended with fatal syncope. In other cases, the current of blood is not so much diminished, that stimulants may not arouse the patient after death has seemed

inevitable. Cases are reported in which such patients, on being aroused, have manifested alarming symptoms of disease of the heart, which have terminated fatally at periods varying from two to eighteen days. No symptoms of cardiac disease had been previously observed and the autopsies revealed no abnormal appearances except the presence of firm clots, such as I have mentioned. The subject is discussed more fully in a Monograph by Prof. Meigs and alluded to in his work on Obstetrics, as also by Prof. Flint in his work on the heart.

2d. Coagula formed in the veins and arteries caused by disease of these vessels in the locality in which the coagula are found.

The pathology of the diseases of the arteries and veins is so well understood and is so extensively discussed in the best works upon Pathology, that I shall say but little upon this portion of the subject. Among the abnormal conditions, which primarily or secondarily produce obstruction, and often, in consequence, coagula in the veins and arteries, may be mentioned: 1st. Pressure caused by tumors, and the deposition of lymph and tuberculous matter in the tissues near the vessels; pressure caused by the gravid uterus, and by contractions produced by the cicatrization of diseased tissues involving an artery or vein. 2d. Enlargement of the vessels, as in case of aneurism, varices, and dilatation of the auricles of the heart, all which are known at times to contain fibrinous collections. 3d. Debility of the heart and inactivity of the capillaries, especially in old age and certain depressing diseases, when the blood gradually ceases to flow in the vessels. 4th. Local inflammation of the veins or arteries, which often, if extensive or not arrested by treatment, terminates in obstruction of the vessels. 5th. Atheromatous degeneration of the coats of the arteries, which roughen the lining membrane and often diminishes the inner diametre of the artery. Fibrinous collections are often deposited upon these roughened portions of the artery and sometimes entirely obstruct the current of blood. I have witnessed six autopsies, in which

the basilar artery of the brain was either much roughened from atheromatous deposit or nearly obstructed from the same cause. Numerous cases are reported in which serious consequences have been traced to some one of the various diseased conditions just enumerated.

3d. Wandering coagula. Several Pathologists of eminence have made wandering clots the subject of special study. During the past few years interesting papers have been published by Dubini, Paget, Tufnell, Cruveilhier, Kirkes and Virchow. The latter Pathologist has probably investigated the subject more fully and has made more numerous examinations of the veins and arteries in the dead subject than any other writer. In an elaborate article of great interest in the "Hand Book of Special Pathology and Therapeutics," edited by Virchow himself, he has presented a very extended review of the subject. The principal facts connected with the phenomena of wandering clots may be thus briefly stated: Fibrin is deposited on the edges of the valves of the heart till concretions of considerable size are formed. These, from subsequent softening, or from the constant motion of the valves, may be dislodged from their seat and carried by the arterial current to a remote vessel small enough to arrest the course of the moving clot. The same thing may happen in cases of coagula formed upon the irregularities produced by atheromatous degeneration in the walls of an artery. Clots are also formed behind the valves of the veins, as in certain cases of varix, become dislodged and carried to the heart, and finally left in some artery of the lungs too small to allow its further progress.

Coagula formed locally in the vessels in any of the five ways above described may be broken into fragments, by pressure produced by sudden motion of a limb or by external violence, and, thus detached from their primary position, may be carried forward to obstruct the circulation of distant vessels.

It is evident that wandering clots formed in the veins must

usually be arrested in the lungs; those originating in the left portion of the heart will be carried to some portion of the general arterial system; while those forming in the veins of the chylopoietic vicera must pass into some of the branches of the portal vein. Virchow has given the term Emboli to these wandering clots.

That the current of the blood is sufficiently strong to carry peices of coagula with it, is proved by the experiments of observers, who have injected small pieces of muscle, cork, India rubber and even metallic mercury into the vessels of animals, and have subsequently found them remote from the point of injection. It is not on theoretical grounds alone that wandering clots are stated to be a secondary cause of disease. Minute examination of the arteries and veins after death have disclosed coagulated fibrin completely filling the vessel for a short distance. The obstructing clots must have been formed elsewhere, since the artery presented no indication of disease either at the point of obstruction or in any other part. In very many of these cases disease of the heart with valvular excrescences have been observed, which resemble in all respects the coagula in the remote vessels. Moreover, cases are reported by Virchow, Kirkes, Bennet and others, in which serious symptoms of disease of various organs have suddenly appeared in certain valvular affections of the heart.

Prof. Bennet states that there are now many cases on record where, in conjunction with such diseases of the heart, clots have been found in the arteries leading to important organs, causing cerebritis, pneumonia, nephritis and splenitis.

According to Virchow, affections arising from the obliteration of an important artery from an Embolus differ from those produced by local diseases of the artery in the suddenness with which the symptoms appear.

There is scarcely need of dwelling upon the serious consequences, which must result from a sudden and extensive diminution of blood supplied to the brain, any of the viscera or extremities. Insanity, convulsions, atrophy, diminution of

force, œdema, gangrene, and even death may follow. Coagula have been found in the coronary arteries of the heart, evidently originating from excrescences on the valves, where atrophy and insufficient nutrition were plainly the secondary cause of abnormal symptoms during life. It is stated on very high authority that gangrene of the extremities is often produced by the presence of wandering clots in the principal artery of the limb affected.

My attention was first directed to this subject some years since by remarks in reference to cases examined in the autopsy room of a very distinguished Pathologist. I have been led more recently to investigate the subject, from the fact that I was called upon to examine the left eye of a lady, which had become suddenly amaurotic four months before. The case may appear to have little connection with the question before us, and, I must confess, at the time I examined the eye, it did not occur to me that such a relation might possibly exist. On examining with the ophthalmoscope the eye affected, I found the transparent media perfectly normal. Externally also the eye seemed healthy, with the exception of a slight dilatation of the pupil. The posterior portion of the retina, instead of the yellowish red color peculiar to this part, as seen with the ophthalmoscope, was much darker than usual. The vessels of the retina were in a condition which I had never before observed, their course being marked only by dark opaque lines, much finer than the normal vessels. At the time I could not explain these abnormal appearances satisfactorily to myself, but gave my patient an unfavorable prognosis. It did not occur to me that it might be well to examine the heart, since in answer to my questions regarding her general health, nothing directed my thoughts to this point.

Two years after this, my attention was called to an interesting article, by V. Græfe, in the Archiv f. Ophthalmogie, vol. V., part I, page 136, devoted to the subject of emboli in the ophthalmic artery. He states that Virchow had already found peculiar clots in this artery in patients who had suffered from

loss of vision. The description of Græfe's case illustrated by a plate of the vessels of the retina as seen by the ophthalmoscope, which so much resembled those of my own case, leads me to believe the two cases should be placed in the same class. In the case of Græfe, the suddenness of the attack, the absence of any apparent disease of the orbit, as tumor or infiltration of lymph, which could produce pressure upon the ophthalmic artery, seem to exclude all causes of the disease, except the presence of a small wandering coagulum. The examination of the heart by auscultation showed the existence of marked disease of the valves.

The subjects to which I have asked your attention are interesting ones and are worthy of a much more thorough investigation than I have been able to bestow. An elaborate monograph upon the subject would be a useful addition to our medical literature, and it is to be hoped that some one who has access to a sufficient number of original papers and reports will undertake such a work.

CASE OF IRREDUCIBLE SCROTAL HERNIA SUCCESSFULLY TREATED.

BY ROSS C. RUSS, M. D., Royalton, Ind.

In August, 1859, I was summoned to visit Silas Crane, a lad eight years of age, suffering with scrotal hernia. The usual taxis was employed without success. In the absence of any evidence of strangulation of the intestine, it was deemed unnecessary to operate. Directed the patient to be placed in the dorsal position, with the shoulders and pelvis raised so as relax the abdominal muscles. This position was retained three weeks. The bowels were kept open by mild cathartics, opiates to procure rest at night and relieve local irritation, lotions of Acet. Plumbi externally to the scrotum. At the

expiration of three weeks I was again called; found the tumor much smaller, and by very little manipulation the knuckle of bowel was easily reduced.

One of Marsh's radical cure trusses was then applied, and up to the present date (Feb. 15th, 1861) there has been no return of the difficulty.

RETENTION OF FŒTUS SEVERAL MONTHS AFTER ITS DEATH. *

BY J. TRIPP, M. D., Morenci, Mich.

I was called Feb. 2d, 1861, at 9 o'clock P. M., to attend Mrs. D. in her third confinement. Three hours after she was delivered of a full grown female child, healthy in every respect. Ten minutes after she was delivered of a second which was dead. From the appearance I should think that the death took place about the fifth or sixth month of gestation. The mother and living child did well.

The singularitity of the case is that the death and long retention of the fœtus were accompanied by no unusual symptoms.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

Subsequently to preliminary meetings, the following named physicians: John Swain, C. M. Mills, A. J. Crain, C. A. Thompson, J. T. Miller, R. H. Brown, H. C. Howard, S. K. Page, S. W. Kinkaid, W. M. Goodwin, S. L. Bearce and J. F. Isom, met at the office of Dr. Mills, Friday, Jan. 2d, 1858, and organized by adopting a constitution and by-laws, and by electing S. L. Bearce, President; J. T. Miller, R. H. Brown,

* Several of these singular cases are on record.—Ed. Jour.

Vice Presidents; C. H. Mills, Secretary; S. K. Page, Secretary. The Society now numbers twenty members. Essays have been read as follows: Gun Shot Wounds, by C. H. Mills; Stomatitis Mateina, by A. J. Crain; Pneumonia, by C. A. Thompson; Alcohol, by W. Somers; Cold as a sedatue, by J. T. Miller; Quinine, by R. H. Brown; Remitting Fever, by J. Swain; Rheumatism, by W. M. Goodwin; Tuberculosis, by M. B. Thompson; Croup, by Dr. Mills; Typhoid Fever, by Dr. Goodwin; Hæmaturia, by Dr. Somers; Gelseminam, by Dr. Howard; Cholera Infantum, by Dr. Isom; Diphtheria, by Dr. Mills. At our first annual meeting John Swain was elected President; Vice Presidents, J. F. Isom and D. B. Thompson; Secretary, J. T. Miller; Treasurer, C. H. Mills. At our second annual meeting W. Somers was elected President; Vice Presidents, R. H. Brown and H. C. Howard; J. F. Isom, Secretary.

The Society has undoubtedly been productive of much good. Discussion and interchange of opinion have caused much closer reading than most members have previously been in the habit of.

Urbana, Jan. 4th, 1861.

W. H. GOODWIN, Committee.

ILLINOIS STATE MEDICAL SOCIETY.

Dear Doctor:

At the last annual meeting of the Illinois State Medical Society, held at Paris, Edgar county, on the 8th and 9th days of June, 1860, the undersigned was appointed Chairman of the Committee on Obstetrics, and Prof. De Laskie Miller of Chicago, Cook county, and J. B. Curtis, M. D., of Decatur, Macon county, Associates.

The Constitution of the Society makes it the duty of this

Committee to prepare an Annual Report on the more important improvements effected in this State in the Obstetric Art, and in the management of diseases peculiar to women and children, and to collect statistics during the year.

To enable the Committee to discharge this important duty, they do earnestly solicit your aid in furnishing the material necessary for such report.

We would direct your attention more particularly, 1st, To the History, Causes and Treatment of Puerperal Inflammations in your locality. 2d. To the Causes and Treatment of Displacements of the Uterus.

Please furnish any information of interest to the profession, relative to the Science or Art of Obstetrics, and Diseases of Women and Children, and forward to the Chairman of the Committee, at latest, by April 20th, 1861. Any matter furnished by you, will be thankfully received and duly credited in our report.

Direct to T. D. FITCH, M. D.,
Kewanee, Henry Co., Ill.,
Chair'n Com. of Obstetrics, Ill. State Med. Society.

Boston, Massachusetts, U. S.

The question of the entire immunity from danger which is claimed for Anæsthesia produced by Ether, being still under discussion, the Boston Society of Medical Improvement has appointed the undersigned a Committee "to investigate the alleged deaths from the inhalation of Sulphuric Ether, and to report thereon."

They would therefore request the Medical Profession, or any person into whose hands this may fall, to communicate to either of them such cases, coming within their own observation, as shall serve to this end; giving the place, time and circumstances of their occurrence, with the mode of inhalation

adopted, and, especially, information in regard to the following points:

1st—*The kind of Ether used, whether pure Sulphuric Ether, Chloric Ether,* or *Ether Combined with Chloroform.*

2d—*The period after inhalation at which death occurred;* also any other facts which may enable them to form an opinion on the subject of their investigations.

RICHARD M. HODGES, M. D.,
GEORGE HAYWARD, M. D.,
SOLOMON D. TOWNSEND, M. D.,
CHARLES T. JACKSON, M. D.

February, 1861.

SELECTED.

TREATMENT OF UNUNITED FRACTURE BY SUBCUTANEOUS PERFORATION OF BONE.

Dr. H. O. Hitchcock, of Kalamazoo, Mich., recently reported in the *N. Y. Med. Times* a case of ununited fracture of the femur of eight months date. The bones had been well coapted and kept in place. Rubbing the ends together, electricity, starch bandage, had been resorted to without success.

The first operation was performed March 26, 1860, and consisted in perforating four times and wounding their adjacent surfaces besides. Seven days afterwards the same operation was repeated and produced much more pain than at first. Eight days after this it was repeated, "and in making the perforations between the fragments the instrument gave to my hand the sensation of hitting osseous granules in a soft matrix." After each operation the starch bandage was carefully applied. April 19—Twenty-four days after the first

peration "no motion could be perceived at the point of racture," but the same dressing was still kept on. July 6th—The patient walked without a crutch or cane.

We desire to call attention to this case, as it is one of a mall number published in which the surgeons have followed ne practice which we have found necessary for success. In nost very unsuitable instruments, such as gimlets, trochars, wls, etc., are stated to have been employed, and the operaons seem in other respects to have been done in a manner hich we have rarely found to succeed.

Dr. M. W. Townsend, of Berger, N. J., reports in the same ournal for March 9, 1861, a case of fracture of the tibia and bula of so interesting a character that we give it entire: [B.]

A. H., aged 33, fractured the tibia and fibula three and a alf inches above the ankle, by a direct blow, August 3, 1856. The fracture was simple, moderately oblique, and the fragnents were so slightly displaced that very little manipulation vas necessary for their adjustment, The leg was dressed by competent surgeon, on a double inclined plane, with side plints, and was retained in the apparatus six or seven weeks. As no union had taken place at that time, the leg was supported, and the patient allowed to move about on crutches, with instructions to use it with care, and, after a short time, to bear slight weight upon it. No amendment occurred except n the fibula, which united. At the end of one year, he commenced walking without aid, supporting the leg with an mperfect contrivance of a natural bone-setter. For three ears he engaged in laborious occupations, until the leg beame almost entirely useless from angular displacements, as ne fibula constantly yielded from interstitial change. Oct. 4, 1860—The tibia at the point of fracture was bowed outvardly ten inches from the correct axis of the limb, and proected anteriorly one and a half inches. Tibia measured in s angular course three-fourths of an inch less than the sound ne, while the fibula was quite as long as the other, a condion accounted for by the great separation of the two bones at ne fracture, from the excessive deposit of callus into the interosseous space, and from the unnatural office thrust upon the maller bone of sustaining weight. Around the fracture, the eg measured two and one-half inches more than the sound ne, while throughout the rest of its extent it was very much trophied even to the bones of the foot.

Oct. 25, 1860—I removed nine-sixteenths of an inch from the fibula at the angle. Interosseous space was filled for some distance above and below the fracture with callus, which impinged so strongly against the fibula as to surround one-third of its circumference, and to carry the anterior tibial vessels and nerve to the inner margin of the smaller bone. A perforator cutting three-sixteenths of an inch, was thrust through the space left by the removal of the piece of fibula, into the callus above and below the point of fracture, between the fragments of the tibia in several directions, as well as into their approximal surfaces. From a point over the internal surface of the tibia, the perforator was thrust in like manner, in radiating lines, until the structures between the fragments were thoroughly divided. The leg was laid upon a pillow, and dressed with cold water. Oct. 27—External wound closed by immediate union. No signs of inordinate vascular action. Oct. 31—One week from operation the callus and opposing fractured surfaces were so softened by the change induced by the perforator, that the angular displacement could be almost removed by moderate force, which could have been done immediately after the operation. A wide splint, reaching from above the knee to beyond the foot, with an angle at both points, well cushioned with leather and curled hair, was bound to the internal surface of the limb, so as moderately to diminish the angular displacement laterally. Each day the roller was tightened until the axis of the leg antero-posteriorly was correct. The angle in front could not be remedied by any appliance to the leg, as the patient's heel had been very sensitive since his first injury. The limb, while still bound to the splint, was suspended by means of adhesive plaster applied to the sole and retained by roller, until its own weight nearly reduced the anterior displacement to the true axis. Nov. 9—Limb put in starch apparatus, and patient allowed to sit up, and after a few days to move about. Dec. 10—Fracture sensibly less mobile than when last examined. No tenderness on firm pressure. Commencing at a point one inch above the fracture and over the spine of the tibia, the perforator was thrust obliquely downwards and backwards completely through the ends of both fragments and plane of fracture, in three radiating lines, without withdrawing the instrument from the integuments. Starch dressings renewed. Dec. 29—Dressings removed; scarcely any yielding on application of considerable force; tenderness; apparatus reapplied. Jan. 15, 1861—Apparatus removed. Fracture firmly united.

Dr. F. H. Hamilton (*Fractures and Dislocations*, page 160, where this case of non-union is noticed) states that according to his observation, delayed union more frequently occurs in fractures of the leg than in any other. Of five cases of simple fractures of the tibia and fibula which have been under the care of the writer, two were examples of union delayed beyond the eighth week, rendering the patient's removal from the bed necessary. If these observations are in accordance with facts, we may see how necessary it is to look well to fractured legs before dismissing our patients as cured, fully satisfying ourselves that there is union by bone.

The above case I consider one which testifies to the efficiency of the treatment for non-union proposed by Dr. Brainard, of Chicago.

CASE OF HYDROCEPHALUS; PUNCTURE; DEATH.

A girl aged fifteen months was admitted into St. Bartholomew's Hospital, under care of Mr. Paget, August 31, for hydrocephalus. She was a badly nourished child, emaciated and feeble. She was said not to have been born with a large head, but that it commenced to increase two months after birth. It was also ascertained that her parents were first cousins, that her mother was paraplegic, and her father phthisical. Four months before her admission her head was found to measure twenty-seven inches round, but on admission the measurement was only twenty-six. The orbital plate of the frontal bone was much pushed forwards, and hence more nearly in the perpendicular. The eyeballs were displaced inwards and forwards. The bones of the skull were at the interior fontanelle widely apart, the fissure extending for some distance betwixt the frontal and parietal bones. She was quiet in the day, seemed pretty comfortable, but cried most of the night. The thumbs were constantly drawn in on the palms of the hands. She still showed some signs of intelligence, and knew the nurse and sisters. Her appetite was voracious. On September 1st Mr. Paget introduced a capillary trocar by the side of the anterior fontanelle, and allowed six ounces of fluid to escape. Except the trifling pain of the introduction of the instrument, no particular uneasiness was produced by the presence of the trocar. On the 8th, sixteen ounces of fluid were pumped out by means of a small stomach-pump with a

gutta percha tube attached. After each of these operations the child was sick for about two hours, but next day it took food, and seemed as well as usual. On the 15th, Mr. Paget drew off eight ounces of fluid, and injected one ounce of an aqueous solution of iodine and iodide of potassium (ten grains of iodine, one scruple of iodide of potassium, and an ounce of water). The operation was borne well, and no unusual effects were produced. No iodism. On the 18th (three days after the injection of the solution), the head measured twenty-seven inches. After each of the first two operations the head collapsed slightly, the space in the anterior fontanelle becoming depressed, and the skin being looser than before. Next day, however, it had regained its previous size and appearance, the fontanelle being as tense as ever. After the third injection, however, the head did not regain its previous dimensions for ten days. On September 20th a fourth operation was performed. Eighteen ounces of fluid were drawn off, and three ounces of the solution injected. The fluid drawn off was rather more colored than usual, being somewhat like that of hydrocele. No iodine or iodide of potassium was detected in it. We may mention that Professor Langenbeck, of Berlin, was present at the operation. He suggested that the trocar should be introduced through the orbital plate of the frontal bone, in order to avoid puncturing the corpus callosum. Mr. Paget, however, preferred to puncture by the side of the anterior fontanelle, as he did in the three previous operations. The operation was performed at about half-past two o'clock in the afternoon. At five o'clock the child became convulsed, and continued so until six or seven o'clock, when the spasm became more permanent, and the child seemed quite rigid. The next morning the eyes were quite bloodshot, and the eyeballs more prominent and drawn in. During the whole of the night the child's limbs remained quite rigid. She did not cry, but she had no sleep. She was very sick. The thumbs, as previously, were spasmodically contracted on the palm, and both the great toes were also spasmodically flexed. The next day (22d) the jaws were quite stiff, the eyeballs sunken. There was less stiffness about the extremities. With the exception of a little milk, she had taken no food since the operation. She died at two o'clock, being just three days after the operation.

Autopsy.—Sept. 24—An incision was made into the more depending portion of the head, and about four pints of turbid serum were let out. The brain, which was not very adherent

o the parts around, was very soft, and at the back was softened to a pulp. The cerebellum was moderately firm, and was pushed towards the right side. The lining membrane of he general ventricular cavity (the septum lucidum being broken down) was found exceedingly vascular, quite scarlet, he vessels presenting almost a varicose appearance. At the nterior part of the ventricular cavity were deposits of flabby puriform lymph, the fluid being very turbid. The fourth ventricle was carefully examined, and was found to be quite blocked up. The lungs were studded with tubercle, as was lso the costal layer of the pleura. The bronchial glands were tuberculous. The liver and spleen were also the seat of uberculous deposits. The fluid drawn off was examined for odine and iodide of potassium; the latter only was detected. —*Med. Times and Gazette, Dec.* 22, 1860.

Note.—This is the third case of hydrocephalus treated by njections of iodine of which we have knowledge. The first was that of Dr. Brainard, in which the treatment was continued during seven months. At first the effect was favorable, but eventually the disease resumed its course. The second was reported by Dr. Tournesko, of Bucharest. The disease was reported cured after one injection.

The case of Dr. Paget is interesting, for notwithstanding he result was not favorable, the injection of ten grains of odine and twenty grains of iodide of potassium, at three different times, with no more effect than had been produced by simple tapping, is calculated to encourage further trials. It corresponds to what we have witnessed, for in the first case above alluded to no effects of a serious character were produced by the injections. Fatal symptoms, like those of Dr. Paget's case, came on while no treatment was made use of.

B.

PROF. FORGET ON INTERROGATION OF PATIENTS.

This is surely a most fruitful source of error. Unless the practitioner be acute, the patient will almost always deceive. He deceives him through stupidity, ignorance or carelessness, as we often see among the people of the lower orders who are unintelligent and inattentive to matters relating to health. They always seem to strive to conceal the real trouble; they always assign senseless causes, and commit egregious errors concerning the dates of the invasion, the symptoms, etc. The patient deceives through prejudice, dissimulation, simulation, exaggeration, according to his material or moral interests. In the hospitals, especially, these causes of error abound, and they are common in society too. Every patient has a theory on the causes of his disease. Discreditable causes are always kept back. How often have you seen me establish conclusively the existence of a venereal disorder or of a pregnancy the patient has positively denied! Only the other day, a young man with a great mass of hemorrhoidal tumors insisted that he had no trouble about the anus. When inspection had revealed the real state of things, he excused himself on the ground that he was ashamed to admit such a disease. A woman whose genitals were studded with vegetations declared there was nothing the matter in this region. Simulation is, in all ranks of society, one of the traps against which the physician has great need to be on his guard. Exaggeration is common in others besides hypochondriacs. Patients deceive through bashfulness, through vanity, through the love of the marvellous, even through gratuitous mendacity. Rachitis and scrofulous ulcers are always the results of some accident encountered in childhood. A cicatrix, a fistulous sore has been produced by a glorious wound. Many patients task their powers in inventing extraordinary causes, symptoms, and therapeutic affects: one has an attack of pneumonia from eating a joint of mutton, another has dejections which scorch his linen, a third experiences formidable accidents from drinking flaxseed tea. Lastly, there are patients who take a malicious pleasure in deceiving their doctor; hysterical women especially manifest this aberration. In short the patient deceives the physician in every way and on every subject. It is a Hercu-

lean labor to criticise, curtail, and rectify the interrogation, not only in cases of ignorant people, but of those in the highest social position, for the latter have oftentimes the most ridiculous notions and the most rooted prejudices on all medical subjects Hence it is that practitioners soon throw overboard those formal protocols, those tedious formularies of interrogation laboriously drawn up by systematic writers, and trust to little beyond the simple evidence of their own senses. This is what I call *veterinary.—Gazette Medicale.—Md. and Va. Journal.*

ON THE ACTION OF THE IODIDE OF IRON UPON PHTHISIS.

BY DR. COTTON,

Physician to the Hospital for Consumption at Brompton.

Dr. Cotton tests the action of this compound upon twenty-five cases, not selected, but taken just as they arrived at the hospital, those only being excluded which either were at too advanced a stage to admit of any remedial treatment, or which happened to be laboring under some inflammatory or other important complication.

The iodide was administered in the form of the syrupus ferri iodidi mixed with water, in doses of a drachm, twice and sometimes three times a day. It was continued, according to its effects, for various periods; the shortest one month, and the longest three months.

Of the twenty-five patients, eleven were males and fourteen females; their ages varied from eighteen to forty years. Eight were in the first stage of the disease; three were in the second stage; and fourteen presented positive evidence of pulmonary cavities. In ten cases there was great improvement; in four, moderate improvement; and in eleven, no improvement.

In analyzing these results, it was found that of the ten greatly improved, four were in the first stage of the disease, and six in the third. Of the four moderately improved, one was in the first stage, one in the second, and two in the third. Of the fourteen in whom no improvement was noticeable, three were in the first stage, two in the second, and nine in the third.

Three cases of improvement were decidedly marked; two of these patients, whose disease was only in the first stage, left the hospital with their pulmonary affection quiescent, and apparently restored to health, calling themselves, indeed, "quite well;" and the other, although more advanced, and in the third stage of phthisis, was marvellously improved, and able to resume his occupation.

In two cases hæmoptysis came on during the administration of the iodide, and in two the iodide was discontinued on account of headache and dyspepsia. The spitting of blood probably was in no way attributable to its use, hæmoptysis having occurred previously in the same patients; but the other symptoms, having ceased or diminished with a change of medicine, might perhaps be fairly referred to its employment. Except in these instances, the iodide of iron appeared to agree very well with the patients, several of whom improved very much in appetite and strength.

Three of the patients in whom there had been no improvement afterwards derived benefit from other medicines.

In eight of the cases cod-liver oil was occasionally taken in combination with the iodide; one-half of these were found to belong to the class of improved, the other half to that of not improved.

Of the fourteen improved cases, ten gained in weight, some of them very considerably, three remained *in statu quo*, and one lost two pounds while under treatment. The improvement, however, was not always in proportion to the increase of weight, some of the patients who had increased the most having improved the least.

It is, perhaps, worth recording that one of the patients took, accidentally, an ounce of the syrup, which would contain thirty-two grains of the iodide of iron. It produced a distressing feeling of weight at the epigastrium, attended with nausea and subsequent purging. For several weeks afterwards there was a loss of appetite, depression of spirits, and a constant feeling of uneasiness in the region of the stomach, all of which, however, gradually passed away, leaving the patient apparently none the worse for the overdose.

After making due allowance for the influence of concomitant circumstances, such as rest, hygiene, and hope, all of which claim a prominent share in the improvement of all hospital patients, we are justified, Dr. Cotton thinks, in arriving at the following conclusions:

1. Syrup of the iodide of iron, in doses of a drachm twice

or three times a day, occasionally produces headache with some dyspeptic symptoms; but, for the most part, it is found to agree very well with consumptive patients.

2. Although very far from exhibiting what might be termed a *specific* effect, it nevertheless seems to act very beneficially in a fair number of consumptive cases, especially in those where the disease is only in an early stage.

3. Under its influence the patient's weight is generally increased.—*Med. Times and Gazette, June* 16, 1860.

SLOW POISONING BY PREPARATIONS OF LEAD,

AND ITS INFLUENCE ON THE PRODUCT OF CONCEPTION.

BY CONSTANTINE PAUL,

(*Arch. Gen. de Med., May*, 1860.)

M. Paul, an *interne* of the Paris hospital, has drawn up a valuable memoir on the effects of lead-poisoning upon the product of conception. We will relate one of his observations as an example, and present a summary of his researches. In February, 1859, a woman entered the Necker Hospital, who had been for eight years working as a polisher of printing type. She was suffering from metrorrhagia, and had an evident saturnine cachexia. She had enjoyed good health, and had been delivered of three children, happily before taking to the occupation of polisher. Since then her health had been much shattered by lead-diseases. Three months after entering upon this trade she had a first attack of colic, and four years later another. At this time she became pregnant, and bore a dead child. Three years later still, she bore a child which died at the age of five months. She had eight pregnancies all terminating in abortion at two or three months, attended with excessive metrorrhagia. She recovered in M. Bouley's ward, under tonic and restorative treatment.

This case led M. Paul to extended inquiries in the type-foundries and elsewhere. He found that those women almost alone who handle the type are affected by saturnine diseases. In a first series of observations, he found that 4 women had had 15 ascertained pregnancies—of these, 10 ended in abortion, 2 in premature labor, 1 in still-birth, and 1 child died within twenty-four hours.

In a second series of cases, 5 women had borne an aggregate of 9 children at term before exposing themselves to lead, and had no abortion or accident of pregnancy. Since exposure to lead they had 36 pregnancies; of these, 26 ended in abortion at from two to six months; 1 in premature labor; 2 in still-birth; 5 children died, 4 of which within the first year; and 2 children were living, 1 being puny and ailing, the other only three years old.

In a third order, a woman had during her employment in a type foundry five pregnancies, all ending in abortion. She quitted the business and bore a healthy child.

In a fourth order, is the case of a woman who, having left the trade for two periods, bore during these intervals of freedom two healthy children; returning to the trade had two abortions.

In a fifth series M. Paul shows that the same disastrous influence is felt when the fathers handle lead. In 7 cases, every woman had an abortion; of 32 pregnancies occurring during the husband's exposure to lead, 12 children were born prematurely. Of twenty living children, 8 died in the first year, 3 in the second, 5 in the third, 1 after the third year, 2 remained living.

In the sixth series the author shows that where the lead affection was less marked there was a corresponding diminution of the injurious effect upon the product of conception.—*S. M. & S. Journal.*

Finger-Nail Signs.—In going round the wards of the Charite with M. Beau, a novice will be not a little puzzled at seeing him scrutinize closely the finger-nails of each newly admitted patient, telling him occasionally, after a few moments' examination of his cuticular appendage: "My friend, you had a bad illness so many months ago, a very severe illness that pulled you down a good deal; and then you had a relapse," and so on. This sort of inverted palmistry puzzled me sorely at first, and I confess that even the explanation, when given, left me very sceptical as to the infallibility of this retrospective fortune telling. Nevertheless, although I do not believe in Hume, the spirit-medium, any more than in Hahneman and his microdosic followers, I do believe in this sign of the past as indicated by the nails. If you look at the fingers of a man who had typhus fever three months ago, let

us say, you will find on the nails, towards their centre (at the interval of time), a transverse furrow, deep and well-marked, coinciding with the moment when the check in their nutrition occurred—the depth of the depression being in proportion to the severity of the illness, its breadth with the duration; and the several consecutive relapses (if such occurred) being each notched on the ungual appendices as on so many tally-sticks. Few men know that they have the past history of their own cases so thoroughly at their fingers' end.—*London Lancet.*—*Savannah Med. Jour.*

Galactics.—*Liquid food*, including milk, good nutritious soups, ale or beer, and other malt liquors. Lager-beer is much inferior to ordinary ale in promoting the secretion of milk, and principally as it would seem from the effect of the pitch with which it is impregnated, and which acts so powerfully and immediately upon the skin and kidneys, creating such a secretion of perspiration and urine, that the tendency to the breast is thus neutralized. "*Spirituous* liquors, instead of increasing, as many suppose, diminish the quantity of milk secreted."

Fœniculum.—Hippocrates, as well as Galen, already speaks of fennel as a means of increasing the lacteal secretion. Dioscorides ascribes the same powers to it (lib. III. chap. lxvii et seq.). According to Mitscherlich, also, it increases besides other secretions, certainly that of milk (Stille's Therap. and Materia Medica, vol. 1, p. 592). In Germany, especially, it has been tried extensively and lauded correspondingly. It is given either alone as infusion ad libit, or combined with various other articles still to enhance its power. Among the most celebrated and valuable formula is that of Hufeland:

℞. Sem. Fœniculi,..... ℥i;
Flav. Cort. Aurant..... ʒss;
Subcarb Magnes..... ʒiij;
Sacch. Alb..... ʒij. M. ft. pulv.

Dose a teaspoonful three times a day.

I have obtained surprising results from Hufeland's formula, which I have employed in several cases, in one where the secretion had been suppressed for three weeks.—*Prof. Gardner—Amer. Med. Times.*

EDITORIAL.

Erratum.—Upon page 144 heading in our March number, for Physiologism read Physiology. There are already *isms* enough in the world, without adding this barbar*ism*.

Longview Lunatic Asylum. Report for 1860. *Ohio.*—The building occupied by this institution is an elegant and spacious one, erected at a cost of nearly half a million of dollars. It accommodates about 400 patients, and is evidently conducted with great skill, sagacity and fidelity by its estimable board of officers.

Dr. C. A. Logan on Miasmatic Fever. Leavenworth, Kansas, 1861.—A monograph devoted to argument against the very convenient, but unsubstantiated, malarial hypothesis, and to show that the true cause of the so-called Miasmatic Fever is to be found in the poisonous influence upon the nervous system of an undue accumulation of carbonaceous material in the blood, however produced. The importance of the functional activity of the liver and the spleen—the necessity of proper oxygenation of the blood, the influence of diet &c., are severally dwelt upon with considerable force. We are obliged to the author for collecting many facts which tend to elucidate this obscure subject.

The Movement Cure. By Chas. F. Taylor, M. D. Lindsay & Blackiston, 1861.—This little work may for aught we know be made, or is already, the basis of some exclusive plan of treatment, which we sincerely deprecate; but, so far as can be judged from a cursory examination, is worth perusal.

It is freely illustrated with diagrams, explaining the particular movements necessary to call into exercise the muscles of each part of the body, and contains many suggestions likely to be of advantage in a systematic course of hygienic treatment.

D. D. Slade on Diphtheria. The Fiske Fund Prize Essay. Blanchard & Lea, 1861; pp. 84.—The reputation of Dr. Slade would warrant circulation to a work of much inferior general interest to the present. The essay embraces the general and special history of Diphtherite, its nature, causes, symptoms, progress, pathological anatomy and treament. It is as concise as is consistent with a clear elucidation of the subject, practical, and we believe will attain a degree of popularity, as it certainly deserves, altogether unusual for "Prize Essays."

Treatise on Fever. By Robert D. Lyons, K. C. C., late Pathologist in Chief to the British Army in the Crimea, &c., &c. Blanchard & Lea, 1861; 800. pp. 362.—The late period at which this work was received will prevent more than a brief notice in this number. A rapid survey of its pages convinces that it is an exceedingly valuable work. It evidently brings up all the knowledge thus far accumulated on the subject of Fever, and condenses and concentrates the whole into a moderately sized, but capital, volume. Dr. Lyons is evidently no hobby rider, but has brought keen perception, extensive acquirement, a large comprehensiveness of view and a pleasing style into full and vigorous exhibition in this work. In a subsequent number we shall not scruple to make copious extracts frem this really fascinating volume, and meanwhile advise you, Beloved Reader, to go to Keen's, or elsewhere, and buy, read and ponder.

The Institutes of Medicine. By Martyn Paine, A. M., M. D., L. L. D., Prof. of the Institutes of Medicine and Materia Medica in the Univ. of the City of New York; Corres-

ponding Member of, &c., &c., with a portrait of the author. 800 pp., 1108 with 6 pp. of certificates appended. Sixth Edition. Harper & Brothers, 1860.—This massive volume is but one of a series of ponderous productions, to the aggregation of which the author has devoted the energies of his life. His name is familiar to the profession as the comparatively isolated expounder and defender of solidism, or vitalism, "pure and simple." In extent of reading, and industry of annotating and writing; in entire absorption of all his faculties into the service of the one fixed idea of his life; in persistent and unchangeable devotion to the building up of leaf after leaf of his immense volumes; in steady and constant search for all the particulars, however minute, which may by any mental device be made to sustain the theories which he seeks to sustain, Prof. Paine is rather German than American, a mediæval schoolman than one of the degenerate scions of this later and "faster" age. It is not a little amusing to notice that about all the various notices and commendations which the work of this author have received, have a reticence about them which does not commit the writers to an endorsement of his opinions. Their greatest eulogy consists in congratulating the profession on the fact, that there is one writer who will insist on keeping the several facts (among the mass of mere assumptions), upon which dogmatic vitalism is based, constantly before the professional mind. They give credit to Dr. Paine for casting an anchor to the windward, so that the ship may not go to pieces on the rocks of chemical or mechanical materialism. Perhaps they forget that, in this age of the world, voyages are not accomplished by vessels perpetually anchored. The philosophy of the author is an absolute *estoppel* upon all progress and discovery. He refers all the phenomena observable in the human body, to certain abstract properties; in his own language, "substituted for the Creator," "analogous to the soul," and "capable of annihilation." He denies the propriety of making use of our knowledge of the physical laws, of any sort, to explain any

of the phenomena of health or disease. He has erected his mammoth volumes, "the principles laid down in these Institutes," as pillars of Hercules inscribed *ne plus ultra.* We have read "these Institutes" from title page to finis, carefully, and we know whereof we affirm when we say that there is not a single idea in the work which has not been antedated for centuries. In this statement, however, we must be understood as excepting the author's misrepresentations and malignant attacks upon particular individuals—in this respect he is eminently original. He never condescends to notice the utter overthrow of his positions by contemporary writers, he recognizes no such abstraction as "the good faith of authorship." Let the positive proofs that his castellated positions are but remediless ruins around him, be ever so evident, he coolly congratulates himself and the world that his "solitary position is becoming relieved." Glorying in his angular, crablike, or rather circular progression, as the locomotive of modern discovery dashes by him he apostrophizes it like a scolding Hecate: "A ha!—my fine fellow, you'll run off from the track one of these days; you had better adhere to the crawfish methods—or better still, to the cuttlefish! Lo, here are "these Institutes," my own cuttlefish obscurity!"

One word about the peculiar method by which the author carries on his argument. Wriggling along through a mazy labyrinth of propositions, when the connective ones ought to be established, when the single fact needed to cement the others is sought for by the reader, and necessitated by the exigencies of the system—*that fact is never developed*, the author refers you to some score of paragraphs where he assumes he has established it. Turn now to each of these references, and you shall find that, under each paragraph, he but refers you to others, *including those first read.* Logically speaking, he undertakes to sustain all his doubtful and untenable propositions by the "Fallacy of References."

Briefly the "Institutes of Medicine" is a work characterized by learning rather than wisdom; by subtilty rather than pro-

fundity, by verbiage rather than ideas. It is not to the careful reader an obscure work. On the contrary by ordinary industry of analysis, there is developed a transparency of its notions, which will positively prevent their general reception among thinking men. The immense pile erected with so much labor, converges to a pyramidal apex, upon which nothing can find foothold or support.

It is a professional Ptolemaic system, wandering helplessly among the Copernicans and Newtonians of modern times. We indignantly protest against this Babel tower, being in any sense confounded with or mistaken for the true Temple of Medical Science. Such books as these, and the horrible methods of practice based upon them, have done more to bring what is called "legitimate medicine" into contempt, and to foster Homœopathy and all its kindred systems of knavery and imposture into public favor, than all other causes combined. We can scarcely be astonished to find quacks of every hue quoting "these Institutes" to sustain their dogmas, as glibly as Mahometans quote the Koran. We conclude by saying this is one of those works which illustrates the proverb "A great book is a great mischief." It has the portrait of the author (stamping it as "*genuine*,") at the head, and the certificates of the press at its tail. Price $4.00—more or less.

Gelsemin in Spermatorrhoea.—The Am. Jour. Mat. Med. commends the following "each night on retiring:

℞ Gelsemin gr. ss. Lupulin gr. iij. M. Gradually diminish the dose as the patient shows signs of improvement. We have cured several severe cases with from six to ten doses."

Chlorate of Potash.—This article has very nearly upset all the old hobbies. One of our friends uses it even when the patient is moribund "to oxygenate the blood." Another, as a substitute for Calomel as "an antiplastic." Another, as a "recondite alterative." Another, as "a stimulant to the mucus membranes." Another, as "a refrigerant saline." Another, as an "expectorant of specific characteristics."

Another has found it an "arterial sedative;" and another cures consumption and perhaps corns with it. Crystalized Elixir of Life!

Seriously, we apprehend that the inordinate and indiscriminate use of this article is becoming a little too dangerous to continue merely ludicrous. It would seem to possess about as active properties as the Nitrate, but tending to elimination rather by the mucus membranes than by the kidneys. Aside from slight stimulant effects upon this membrane, we feel warranted in saying that there is no real evidence of its medicinal efficiency. It seems especially useful in certain morbid conditions of the respiratory mucus membrane. Employed, as it frequently is, in aqueous solution acidulated by Hydrochloric acid, it of course has to divide the honor of success with the acid of the menstruum. We really hope that this very clever little medicine may not be "run into the ground" by its present enthusiastic admirers. We have too much regard for it, in some cases and in small doses, as a very convenient *placebo*—cheaper even than Iod. Potassium.

Infibulation.—In these days of moral degeneracy we are sometimes led to look back with longing eyes upon "the good old times," when the world had not become practiced in iniquity, and young people were patterns of moral excellence. We are not disposed to sermonize, but in looking over an old edition of Fabricus Ab Aquapendente we find in Cap. LXIII, *De Chirurgicis Operationibus*, the *Ratio Infibulandi Adolescentes*—which, at the present, when Anti-Tobacco seems to be the only escape valve of hygienic enthusiasm, would appear to offer a new field of philanthropic effort. We roughly translate it from the original black-letter Latin—brushing away the dust of antiquity, we commend it to the consideration of medico-moral refomers.

"The infibulation of boys, according to Celsus, is accomplished in this wise:

It is performed sometimes on account of the voice, and

sometimes on account of health, and the method is to extend the foreskin over the glans and mark upon each side the proper place for perforation, and then it is allowed to slip back again. If the marks are returned over the glans, too much is taken up, and it should be marked lower; if the glans is free from them, the proper place for the fistulæ is secured. Then the skin is transfixed through the marks by a needle carrying thread; the ends of this thread are tied together, and it is daily moved until the foramina are cicatrized; when this is perfected the thread is removed and the *fibula* is inserted. But this, indeed, says Celsus, is often greater than necessary. By this method of infibulation if the fibula should not be seen, nothing can be perceived, as Celsus remarks. Wherefore I am in the habit of exhibiting to my hearers an antique fibula, procured from the museum of the illustrious Pinellus, and apply it to the organ that they may see how youths may be preserved from sexual connection."

All are familiar, of course, with the methods of an analogous kind, formerly, and even now in certain parts of the world, adopted to secure the chastity of their females. Would it not enlarge the area of professional service to the world, if some of the gentlemen now howling themselves hoarse, and writing themselves blind, over the Whiskey and Tobacco hobbies, would—

"Leave off their damnable faces and begin"

to revive these ancient methods of moral reform, or rather prevention, of which we are told an ounce is worth a pound of cure?

Influenza.—This common and depressing malady, a correspondent of the New Orleans *Journal* observes, is no longer treated in England with purgatives and salines. Mulled wine is the favorite and successful substitute. One prescription used with much success is the following:

℞. Ammon. Sesquicarb..... 3 ss;
Ætheris Chlor..... 3 j;
Tinct. Cardam. Comp..... 3 j;
Mist. Camph. ad..... 3 vj;
Ft. mist. partem quartam 4 tis horis.

She-Doctors.—Dr. Bennet Dowler is out in his editorial columns, in favor of recognition of a feminine branch of the profession. He advises consultation with them, provided they are properly educated and qualified. "Is not," says he, "the rule forbidding consultation with all females, regardless of their qualifications and merits, an unnecessary restriction? an aggression? an injustice which will react injuriously upon the profession, and give rise to well-grounded charges of prejudice and persecution?" Whilst we cannot but admire the chivalrous gallantry of our Southren *confrere*, we must be allowed to dissent totally from his conclusions. We do not propose to discuss the Woman's Rights question—all the world knows the dear creatures have the right to make doctresses, or worse, of themselves in "these United States," but another question arises when we coolly contemplate such a recognition of them, as to encourage others to fly off in such a deplorable tangent from their true orbit. We like women well enough, as an abstract proposition, but from the tongue of the sex in consultation, (*Horresco referens!*) we can only pray—"Good Lord deliver us!" Just think of this new apple of discord, tossed into the already not over peaceable professional circle! Would not the French critic's description of "the brilliant discourses which adorn the French Academy," be re-enacted every time He and She met over an unhappy patient? *Sic*—"A strife of words kept up by a confusion of principles; entire absence of conviction in one party, and extreme narrowness of views in another; fighting in empty space; reasonings in a circle; and false conclusions."

Solutions of Iodine.—From many recent experiments, the opinion seems to be gaining ground that, in order to develop its full powers as a local application, Iodine requires to be used in much stronger solutions than have usually been employed. Whilst Nitrate of Silver has been used in very strong or even saturated solutions, Iodine, perhaps from apprehension of its more highly irritating character, has been applied

only in solutions of comparatively trivial strength. As an application to the Diphtheritic throat, to the cavity of abscesses, even into the serous cavities affected by disease, &c., &c., there are evidences accumulating that solutions of maximum strength are proving vastly more efficient, and freer from unpleasant consequences, than has heretofore been considered either probable or possible.

Hypodermic Injections.—Dr. Thayer, in the *Berkshire Med. Journal*, chronicles quite a number of cases of neuralgia and local pain from other causes, a case of dysentery, one of asthma, and one of delirium very promptly relieved by subcutaneous injections of solution of morphia—using generally about the sixth of a grain in q. s. of the menstruum.

Bandages in Rheumatism.—The *Berkshire Journal* strongly recommends bandaging of the affected limb as "a valuable adjuvant" in the treatment of Rheumatism.

Bloodletting, et alii.—Prof. Gross recently read a paper before the Philadelphia County Med. Society, wherein he enters an earnest protest against many of the medical ideas of the present time. The initial proposition is sufficiently significant of what is to follow. He says:

"The revolutions in medicine have been almost as numerous as the revolutions of empires, and hardly, if indeed any, less disastrous to human life. The checkered arch which spans its horizon, has everywhere inscribed upon it, in legible characters, the words change, change, change. Every age has had its medical absurdities and inconsistencies, and, judging from the tendencies of our own, it is evident the times are sadly out of joint in these particulars."

To stay this flood tide of change appears to be the great object of the author. He believes in the unchanging type of diseases; he believes in inflammation as at the bottom of all organic diseases; he believes in bloodletting as the especial

remedy for inflammation, and he believes that the modern substitution of opiates, stimulants and sedatives, for the good old-fashioned lancet, is fraught with multitudinous danger. He quotes the case of the late eminent Dr. Francis, who once in a violent attact of croup lost, in a few days, nearly three hundred ounces of blood, and yet recovered. [It is a saddening commentary on this temporary escape of Dr. Francis, that his son, a young man of brilliant promise, was unquestionably hurried to his grave by an attack of Typhoid Fever, which was treated heroically by Bloodletting and Mercurials!]

He denounces Todd and John Brown, (not him of Harper's Ferry, but "the other man"), sneers at Virchow, cannot endure Bennett, and begs Young Physic to recollect that Hippocrates is looking down upon him from the height of nearly twenty-five centuries.

It seems a mere platitude to repeat "antiquity is but the youth of the world," but Prof. Gross appears to sturdily believe (with "the venerable Dr. Paine,") that what was taught by the magnates of mediæval or ancient times, is as rightfully binding upon the belief of the present day, as the experienced teachings of an old man upon a youth.

Now, with the highest estimation for the professional learning of Prof. Gross, we must say that, here and elsewhere, we believe he is misled by the adoption of utterly untenable premises.

1. He assumes that there has been no change in the type of diseases,—hence old time experience in their treatment and the evidence of the fathers, in favor of "depletory" and "antiphlogistic" methods of treatment, are to be received unhesitatingly.

2. He assumes, in fact although not in express terms, that the great variety of changes collectively denominated "inflammation," are essentially the same process, and hence amendable to the same treatment.

On one page he insists: "*There is no doubt that an early spoliative bleeding and the judicious use of the more heroic*

articles of the materia medica, formerly so much in vogue, will often do more in saving structure and function than any other of the popular remedies of the day." (The italics are ours.) But upon the next page, apparently conscious of the dangerous application of this suggestion, in a description of his ideal of an "older and wiser" practitioner, he says that "*He administers medicine with a sparing hand, carefully eschewing everything that savors of polypharmacy and heroic measures.*" Is this a "sop to (the professional) Cerberus?" We are content to aspire to belong to Dr. Gross' "older and wiser" party.

The fact is "Brunonianism and Toddism," between which the parallel is attempted to be drawn, have no scientific feature in common. It is a logical error to assume that because in some respects things are similar, that, therefore, they are essentially alike. Scientific modern practice, as largely influenced by Drs. Todd and Bennett, is not to be put down or belittled by coupling it with "Brunonianism and other isms." The "reaction," or rather retrogression, so earnestly desired by Prof. Gross, is not to be secured by falsely supposed damaging comparisons, any more than the scientific physiology and pathology of the day is to be overwhelmed by the ponderous treatises which Prof. Paine has rolled up, by constant iteration and reiteration of the foggy lucubrations of Stahl, Van Helmot and the musty scholiasts of the dark ages.

Ligation of the Arteria Innominata.—Dr. E. S. Cooper's case proved fatal on the forty-first day, by secondary haemorrhage. Haemorrhage occurred once or twice to a slight extent but was controlled. Ultimately the patient, in a fit of either frenzy or despondency, tore off the dressings and speedily succumbed.

Prof. Lawson returns to the practice of his profession at Cincinnati this spring.

Diphtheria.—A correspondent in Indiana writes, in a post-script to a business letter, as follows:

"Diphtheria prevailed in this locality to a very considerable extent during the previous autumn. From actual experience and demonstration, I am prepared to prove that no benefit will accrue from the use of Nitrate of Silver as a caustic. I treated fifty-one cases without cauterization of any kind, and lost but two. I depend for the most part upon the constitutional treatment. I used Quinine and Chlorate of Potash freely—Calomel when I deemed it necessary. I have given to a child from three to four years of age, from 100 to 120 grs. of the Chlorate in 24 hours."

We hope our friend will communicate more in detail.

Camman's Stethescope.—This formidable looking toy can be obtained in this city, at or about $7.00, we believe. We have one in the office which hung up in sight for a year or two, but having accidentally ascertained that by some of our patients it was mistaken for a pair of obstetrical forceps, we incontinently stowed it away in the recesses of our deepest drawer. *Hic jacet!* It is a capital invention for magnifying the mistakes to which the common single-barrelled Stethescope gives rise.

To Correspondents.—We cannot undertake to reply by letter to all letters received, unless there is special occasion. Our list of receipts, it will be seen, cannot include those of a later date than ten days or a fortnight prior to the issue of the No. which contains the list. Where it is appropriate we shall respond through the JOURNAL. We have promptly mailed all such back No's as have been applied for. To several parties we have mailed back No's twice, on information that those previously sent had not come to hand. If they have not been received it is not our fault, but must be charged upon the mails.

Bills.—In the present No. we enclose a statement of the accounts of all subscribers in arrears, as they appear on the books of the JOURNAL. If any errors are manifest, they will be corrected with great pleasure. It is positively incumbent upon us to collect in these bills. Pay a part if not the whole, but pay the whole if possible. There are not less than Three Thousand Dollars standing upon our books, even after excluding all those not believed to be against "good men and true." Meanwhile we are paying the printer from our scanty private funds. It is to be hoped there will be no more delay in settlement.

SINCE the re-organization of the Faculty of Rush Medical College, it has been a matter of constant concern and effort to enlarge and improve the Museum. Already the evidence of their united effort is visible in the greatly increased means of illustration, and rapidly growing collection. Valuable importations have been made from Europe in the different departments, besides the addition of very many useful and elegant specimens of home preparation.

New cases have been placed in the Museum the past year which are quite filled, and others will be added the coming summer, which it is the intention shall not long remain empty.

A few years will find the College in possession of a collection commensurate with its rapidly growing wants, and proportioned to the importance of its position.

The efforts of the Faculty can be materially aided by the Alumni and friends of the Institution having abnormal or other specimens in their possession, by a donation to, or deposit of them, in the College Museum. They are comparatively valueless to the private practitioner, being seen by but few, whereas in a Museum, visited by hundreds every year, their worth is proportionally increased. It is in the hands of the Teacher of Medicine that abnormal specimens attain their true value.

City Medical Library.—There are in Chicago somewhere from 175 to 200 regular physicians. There are, of course, an innumerable throng of quacks and nostrum peddlers of every hue, from the elegant specimen who haunts the outgoing cars of the Central Rail Road with his "*two-shilin-botl-warnted-to-cure-ed-ache-toothache-nd-any-kind-of-pain-in-five-min'ts*," down or up to the ponderous individual who vends small pills in marble fronted houses on *the* Avenue. But these latter we pass over for the 175 of the regular order.

There are two or more Medical Societies in the city and county, each useful in its day and generation. These societies are sometimes disposed to look with disfavor upon such professional gentlemen as do not join their ranks as members. Nevertheless the truth remains, that but a moiety of the profession belong to either. We propose trial of another method of association, and that is, the establishment at some central point in the city of a Medical Library, suitable to the wants of 175 or 200 reading professional men. A Library of "books which are books,"—a collection which may prove as valuable to our profession as the Law Library in the Court House proves to the legal gentlemen of the city. Let the library room be the professional exchange where physicians shall meet, both formally and informally, and compare notes and exchange views. Where the amenities of professional intercourse may be cultivated, at the same time that minds are enriched with valuable information. A moderate fee for admission to its privileges at the outset, and perhaps annually; donations, which would be abundant if permanency was guaranteed, and a little vigorous effort in the right direction, would soon give us a Library which would be an honor to the profession and the city. The details are simple and the methods evident. What say you, Gentlemen, whose lives and voices are elevated continually in the advocacy of "elevation of the profession?" Which of you will immortalize himself by moving in the matter?

Death of Dr. Fountain, of Davenport, Iowa.—Dr. Fountain's death occurred on Friday afternoon last, after great and continued suffering for a week, which he had borne with unflinching Christian fortitude. For some time past he had been continuing, at the suggestion of the American Medical Association, his researches upon the properties of chlorate of potassa as a remedy in phthisis, taking the ground that the article when pure was almost entirely harmless in large doses. Under this conviction, he took upon several occasions doses of half an ounce, and on Friday at 10 A. M. he took one ounce, dissolved in a pint of water. No serious symptoms occurred through the day, except a profuse diuresis and discoloration of the superficial circulation, and he visited his patients as usual. Having eaten a hearty supper in the evening, he returned to his house, where he was shortly after seized with severe pain in the abdomen, and so greatly prostrated as to be unable for some time to call assistance, (being alone in the house, his wife being absent at the East.) He expected to die in this condition, but by a desperate effort succeeded finally in calling his neighbors, who sent for his partner, Dr. Adler. His symptoms were after a time partially relieved, but soon he was seized with vomiting, ejecting a dark-colored, greenish fluid, being unable to retain any nourishment; the secretion of the kidneys was also entirely suppressed. This condition continued, with a gradually increasing prostration of the system, (the mind being perfectly clear,) for seven days.

"The post mortem examination revealed extensive inflammation and disorganization along the whole course of the intestinal canal, with adhesions agglutinating nearly the whole of the abdominal viscera; the gall bladder distended with a a thick dark colored fluid; the kidneys enlarged and lobulated externally, the internal surface and substance engorged, and the uriniferous tubes distended, containing frequent points of a crystalline substance, which was, without doubt, chlorate of potassa; and the bladder entirely empty, contracted and inflammed.

As a full statement of the case will be published, it is unnecessary for us to dwell further upon it.

In the death of Dr. Fountain the profession in the Northwest has lost one who was destined to prove one of its brightest ornaments, and the community in which he lived, one of its most valuable citizens.—*Chicago Tribune.*

We had little thought when penning the paragraph or

Chlorate of Potash, in another part of the present number of the *Journal*, that our ideas were so soon to have a striking and melancholy illustration. This sad experiment has shown that although the article in question is comparatively inert, in doses ordinarily employed, yet in inordinate amount it is capable of even fatal effects. In this respect it is altogether analogous to many other salines. We trust that this calamitous result may not fail to impress the needed lesson.

It is to be hoped that we shall hear no more of the intense folly of Chlorate of Potash being in any sense a remedy for phthisis. Phthisis never has been, and we hazard little in saying, never will be cured by medicine. If modern physiology and pathology have taught any one thing more than another, it is that this fearful disease is to be met by nutrients and appropriate regimen. Medicine therein is only indirectly and remotely beneficial. And yet we have known case after case go down to death, in this very city of Chicago, during the winter just past, treated empirically with Chlorate of Potash, expectorants and seclusion. Why, it is not yet a year since one of our most estimable physicians allowed himself to be treated for phthisical symptoms with small doses of antimonials and low diet! He fortunately escaped the immediate necessary effects, by seeking the natural tonic and stimulant effect of Lake Superior air and habits (including appropriate drinks) during the last summer, and during the winter the opportunities of out-door air and exercise, and consequent invigoration of the digestive system, afforded by a Southern climate.

It is our duty to make one other remark in this connection. Experiments made upon the healthy system, are of doubtful import, as illustrative of the effects upon the same system in a state of disease. The article which is rapidly eliminated by the healthy organ and thus proves harmless, may in a condition of disease prove deadly by its continuance in contact with the same. Experience demonstrates the fact, however it is explained.

Much confusion exists in some minds as to the terms medicines, poisons and food. Medicines and poisons are agents capable of producing a change in the structure or action of any part or the whole of the system, although constituting no part of the integral constituency. They are respectively poisons or medicines according as this change is not, or is, necessary. The degree of action does not constitute a scientific distinction in their nature. A medical action is never unnatural. It is a gross confusion of terms to call any medicine an unnatural agent. As well speak of the fire which restores the warmth of the body as an unnatural agent, because it can char and destroy the same body thrown into it. But food enters into the very structure of the body, and constitutes an integral part thereof. Not so entering or constituting, it is noxious, poisonous if you please, in kind if not in degree, as is woorara or arsenic. A like significance attends the idea of the influence of all the so-called imponderable agents. They are noxious or salutiferous according as the changes they tend to produce are not, or are, requisite.

With due regard to strictness in the use of language, there is not, and cannot be, a specific for any disease, phthisis or other. In this day it is as great folly to search for it, as for the "Philosopher's Stone" or the "Elixir of life" of old time imaginings.

Let the Homœopathists enjoy their specifics jointly with the other newspaper quacks,—we shall continue to steadfastly believe that, though hand join in hand, they shall not escape their destined punishment.

The very best remedy for a diseased organ, whether a tuberculous lung, an indolent ulcer or a gouty toe, is to wash it with healthy blood, flowing from within outwardly, and not by healing salves, inhalations, poultices and specifics, working from without inwardly, as the manner of some is.

The method of nature is to be imitated by art, but as Shakspeare observantly writes, "The art itself is nature." It is all very well to train the branches and graft them, to wash

and peradventure whitewash the trunk of your tree, but if you wish it to grow and flourish and bear goodly fruit, you must supply the rootlets and spongioles with nutrient fluids, and surround the leaves with appropriate atmosphere.

One very considerably eminent gentleman is reported to have said that the great want of the present time is, a specific for tubercle, and a specific for cancer; as in Scabies we have Sulphur, and in Syphilis, Mercury, for specifics. The prayer of his heart can never be granted as he intended, although it may in fact. Because neither Sulphur nor Mercury are specifics within any correct definition of the term.

Specifics, whether Chlorate of Potash or Morrison's Pills, can have no existence anywhere, save in the imaginations of speculative theorists and hobby riders.

In these remarks we by no means would be thought to convey the idea, that the lamented Dr. Fountain was in any way committed to the idea that Chlorate of Potash would prove specific in Phthisis. We do not know whether he was or not; but we do know that many who had read his articles on the subject, have already mounted this hobby and were fast riding it to the death—of their patients. For Heaven's sake, my Chlorate-of-Potash-bitten friend, don't ride this poor hobby to the nether regions as quickly as you did Veratrum Viride, yesterday; Aconite, the day before, and Digitalis a little while since. Or were you straddling the Hypophosphites last week? We have medicines enough already—too many; would that we knew better how to use them.

Meanwhile, what do you say to a bit of beefsteak, tender, rare-done, washed down with generous beverages, (such as saved the threatened life of our friend above spoken of,) a little more pure air and sunlight, a clear conscience, sleep at nights and regular bowels? *These* afford a remedy for Phthisis worth thinking about.

Ye Oliphaunt.—It is whispered among the knowing ones of the city, that some of our professional brethren having

drawn an elephant in a raffle, are in great straits what to do with him. We see countenances in which melancholy anticipations, scarce concealed, prey like a worm in the bud upon their *damaged* cheeks—What shall be done with "*ye oliphaunt?*"

Briefly then, as public journalists, we advise those implicated, —don't hang your lip or put finger in the eye, but draw your weasel-skins like men. That is "the long and the short of it," as a gentleman laboring under difficulties says when he compares his debt and credit pages.

Sir Benjamin Brodie's eyesight is pronounced lost beyond the hope of restoration. The London *Medical Circular* says:

"Prior to the late operation, the distinguished German oculist consulted in the case had expressed an opinion that the retina behind the cataract would be found to have retained its integrity; but a month has passed since the removal of the lens, and no improvement whatever has taken place. Objects of any kind are totally undistinguishable, and almost light from darkness. In other respects it is satisfactory to state that Sir Benjamin is in good health, and bears his misfortune with becoming fortitude."

By other advices it is understood that the blindness is not so complete or hopeless as here intimated. Nevertheless the the worst is feared.

Thesis.—Dr. M. M. Eaton, of the late graduating class of Rush Med. College, furnished a very well written Thesis on Menorrhagia as his inaugural. It was inadvertently omitted from the copy furnished the printer last month.

Marine Hospital at Detroit.—The profession in Michigan are to be congratulated on the selection of Dr. Bliss, of Grand Rapids, as Surgeon of their Marine Hospital, by the new administration. Our bowels of compassion yearned over the imminent danger of the unfortunate sailors, contingent upon the appointment of another *strong* (in the olfactory sense) individual to the post. Dr. Bliss will honor both himself and the Government in the position.

Homœopathy in the University of Michigan.—It is rumored that the Legislature of Michigan have again attempted to foist one or more chairs of Homœopathy upon this institution. We opine the effort will fail as it has heretofore done. The Constitution of the State lodges the supreme control of the University in its duly elected Regents, and that body dare not shoulder the odium of any such folly. The only things homœopathic that are or will be permitted about the Ann Arbor College, are the fees for admission, and the brains of *two* of its ——perhaps that is going far enough among the infinitesimals.

Chicago Marine Ho spital.—At the present writing, so far as heard from, the appointment of Surgeon to the Marine Hospital hangs fire. There is a rumor floating around the streets, however, that it is to be bestowed in a quarter which makes the doctors stare at each other in blank amazement and leaves them undecided whether to laugh or swear. As it is none of our funeral, we can only beseech the mourning disappointees to take another long breath, wipe their eyes and hurrah for "*Ol Dabe.*" Dear Brothers, there are *some* names with which treachery is a synonym. Which of you was cheated?

The Cæsarean Section.—A correspondent of an Eastern exchange, recently, coolly suggests that mothers with deformed pelves should be allowed in all cases to go their full time, and then trust to the chances of the Cæsarian section. It is suggested to our cotemporary who admits the communication, that that will do for *that* correspondent. *He has climbed high enough on that pole—take him down.*

Ointment for Hemorrhoids.—A good substitute for the Ung. Gallae is afforded by rubbing in a mortar from one to five grs of Acet. or Mur. Morphiæ with a little oil, and adding to this an ounce of lard or spermaceti ointment well mixed with from ten to thirty grains of Tannin. This is unirritating and efficient.

American Medical Association.—The Nashville *Medical Journal* makes the following timely observations:

"The founders of the American Medical Association were wise enough to foresee the metamorphosis of nations upon this continent, and in establishing a government for its profession of medicine, placed it above the reach of revolution. There is nothing *national* in the Association. It was designed for America with its one or one hundred nations. It is not the Medical Association of the United States—not at all. It is the American Medical Association. We have seen the profession of Canada represented in it, and hope to see members from Central and South America raising their voices in it for the general good. It could constitutionally hold its meetings in Vera Cruz, Montreal or Havana, as well as in Charleston or New York, and would do so upon invitation. We hope to see a large meeting at Chicago in June next. The Garden City can accommodate all that go. Let every physician of America, from ocean to ocean, and from the Gulf of Mexico to the North Pole, feel that

"No pent-up Utica bounds his view,"

and that he owes it to his profession to stir up the members of his local medical society to see to it that a full representation shall be had."

It is understood that the energetic and zealous Committee of Arrangements have secured Metropolitan Hall for the session of the Association. It is perhaps to be regretted that the better characteristics of the new Bryan Hall, in respect to acoustics, ventilation and beauty, had not commended it to the committee in preference. It may not be too late even yet to remedy this apparent mistake. Nevertheless we can assure our visiting friends that the quarters secured are equal, or superior, to any which have heretofore been placed at the disposal of the Association.

We fervently trust that Chicago shall prove in June next a true medical Mecca, whither the Æsculapian tribes shall come up and revive if possible the ancient glories of the profession.

Extirpation of the entire Parotid.—M. Marzolo relates a case, in the *Gazetta Medica Italiana*, wherein he extirpated

the entire parotid gland, preserving the facial nerve and the external carotid artery. In six weeks the cure was complete; and eleven years after, the patient, a woman of fifty, had presented no indications of a return of the disease. The *Gazette Médicale de Paris*, which also records the case, appears not to be perceptibly astonished—although consternation and wrath may, perhaps, run riot in the classic purlieus of *L'Ecole de Pratique*.

Free Openings into Suppurating Joints.—There is very decided progress in opinions, with reference to the propriety of freely opening synovial cavities, where evidences of suppuration are present. The danger of admission of air has been, clearly, over-estimated. The advocates of speedy opening have, recently, adduced powerful support of their position by published cases. Not only is immense pain and suffering spared the patient, but recovery with unimpaired function of the joint is manifestly promoted. Even when the larger serous cavities become involved in the suppurative process, it is beginning to be understood that not only may the contents be safely and advantageously discharged by operation, but their surfaces may often be hopefully treated by local medicinal applications. Germane to this proposition, we are promised the details of a case of pleural empyema, wherein a solution of Iodine, of almost heroic strength, was injected with the most admirable beneficial effect, including a speedy and permanent cure.

We opine that pure air is not so dangerous either to the internal or external parts of the body as some of the advocates of "seclusion in phthisis" and sundry other disorders seem to imagine. The advantages of freedom of discharge largely counterbalance all theoretical fancies about the disastrous effects of air.

Epitome of Braithwaite's Retrospect. By Walter S. Wells, M. D. New York: Chas. T. Evans. For sale by W. B. Keen & Co., Lake Street.—We chronicle the issue of this work with very great pleasure. In two volumes of a little over 900 pages each, we have collected the cream of this well known Retrospect. Having examined the volumes with care, guided somewhat by our own copious index of the original prepared with very great labor, we freely say that the Epitome is really more valuable than the complete serie All the subjects treated of are collated in alphabetical order, and crowned with a full index, so that any subject can be referred to at once. At a moment's glance you can find all of improvement, advance or innovation, that Braithwaite has gathered up in the last twenty odd years—a period richer in progress than any other known to history. The Editor has performed his part of the work with great industry and sagacity. We hesitate not in saying that no physician, who has any idea of "keeping posted," can afford to do without the Epitome. The advertisement, being a matter of permanent interest, can be found on another page.

We are gratified to notice that the very capable Editor is preparing a Summary of Medical Sciences to be issued by the same publishers semi-annually.

Chicago, April 3d, 1861.

Ed. Chicago Medical Journal:

Since handing you the article to be contained in another part of your *Journal*, I have seen a communication from the pen of Prof. A. K. Gardner, appearing in the *American Medical Times*, wherein he claims priority of invention and asserts the superiority of his "Uterine Elevator" over that described by me in the *Times* a few weeks before.

I cheerfully concede the rights of the Professor, so far as they regard mere antecedence in the application of the me-

chanical principle involved, though, I may be permitted to add, I was not myself, nor were the professional gentlemen to whom I submitted my instrument and by whose advice I published the account of it, aware of the existence of his "Elevator." I had consulted the latest catalogue of Messrs. Tieman & Co., and found there a notice of *Sanger's*, *Sims & Elliott's* instruments, and had taken pains to see them, hoping to meet *in them* the requirements of a case then under treatment. No mention of Dr. Gardner's instrument is made in that catalogue, and my ignorance of his invention, therefore, needs no further apology.

As to the alleged inferiority of my "Retractor," a practical knowledge of its efficiency inclines me in no respect to defer to the opinion of the distinguished Professor. The axis of the instrument, when in position, is near enough the os uteri for all practical purposes, and in fact, by the distance of "half an inch" intervening, perfect security for the cervix is gained. In my opinion, the "Retractor" is not so obnoxious to criticism, on the score of liability to get out of order, as is the instrument of Dr. Gardner, the working parts being entirely enclosed, yet not beyond the reach of lubricating oils.

In conclusion, I still maintain the "Retractor," as neither too "clumsy and heavy," nor of less power than is perfectly sufficient for the object proposed in its construction.

Dr. Gardner's instrument must be used in but one direction, the stem being capable of motion, so far as I may judge from his diagrams, to the extent of three-quarters of a circle, nor is the operator able to detect the exact position of the uterus by means of any mechanical appliance, as is the case with the instrument devised by myself.

Yours very respectfully,

H. WEBSTER JONES, M.D.

MORTALITY OF CHICAGO FOR FEBRUARY, 1861.

DISEASE.	NO.
Brain, Inflammation of...	2
Convulsions	6
Hydrocephalus	4
Teething.....	20
Exposure.....	1
Diphtheria	15
Croup	9
Whooping Cough.....	1
Scarlet Fever.....	3
Pneumonia.....	5
Cardiac Disease.....	4
Enteritis	4
Cholera, Infantum.....	7
Rheumatism.....	2
Still Born.....	2
Puerperal Fever.....	1
Old Age.....	3
Burrs.....	1
Intemperance.....	2
Typhoid Fever.....	4
Lungs, Congestion of.....	3
Liver, " "	1
Consumption	25
Unknown.....	10
	135

AGES.	NO.
Under 1 year.....	31
Between 1 and 5 years..	43
" 5 " 10 " ..	7
" 10 " 20 " ..	4
" 20 " 30 " ..	9
" 30 " 40 " ..	9
" 40 " 50 " ..	12
" 50 " 60 " ..	6
" 60 " 70 " ..	5
" 70 " 80 " ..	2
Unknown	5
	135

Teething.

AGES.	NO.
Under 1 year.....	4
Over 1 year.....	16
	20

Consumption.

AGES.	NO.
Under 1 year.....	2
Bet. 10 and 20 years....	2
" 20 " 30 "	8
" 30 " 40 "	4
" 40 " 50 "	2
" 50 " 60 "	3
" 60 " 70 "	4
	25

Diphtheria.

AGES.	NO.
Under 1 year.....	1
Betw. 1 and 5 years.....	10
" 5 " 10 "	4
	15

Deaths in the different Divisions of the City, divided as follows :

North Division.....	36	West Division.....	53
South "	46	Total	135

The Mortality List of this year compares as follows with he List of Mortality for 13 years. The number of deaths or the month of February for a number of years has been as ollows:

1847	32	1855	123
1848	41	1856	92
1849	36	1857	106
1850	53	1858	126
1851	33	1859	115
1852	42	1860	128
1853	81	1861	123
1854	95		

IEETING OF THE ALUMNI OF RUSH MEDICAL COLLEGE.

The undersigned, Alumni of Rush Medical College resident n Chicago, propose to our brethren a Re-union, to be holden n Chicago on the day immediately preceding the meeting of he National Medical Association. Believing that such a meet- ng would be of interest to all to whom this call is addressed, nd as a similar opportunity is not likely soon to occur, we ordially invite you to participate in the pleasures of the occa- ion.

W. C. HUNT,	WARREN MILLER,
V. L. HURLBURT,	E. O. F. ROLER,
JOHN NUTT,	EDWIN POWEL,
E. INGALS,	I. P. LYNN,
PHILIP MATHEI,	J. W. FREER,

JOHN B. BROWN.

A Work every Physician Wants.

SUMMARY OF MEDICAL SCIENCES.

Comprising the essentially practical articles embraced in
BRAITHWAITE'S RETROSPECT, RANKING'S ABSTRACT,
THE LONDON, DUBLIN, EDINBURGH
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FRENCH, GERMAN, AND OTHER
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commencing with 1860.

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THE CREAM OF MEDICAL LITERATURE.
In addition to such resume will be embodied contributions from
EMINENT AMERICAN PHYSICIANS AND SUGEONS.

Edited by WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

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"We regard this as one of the most valuable contributions of the day, and a a speeial favor conferred upon the profession."

The above are only a few of the notices of the work which the publisher has received. Without an exception the Medical Press has spoken of it as a NECESSITY to the Profession. Subscribers to the work who have already purchased speak of it in the sameflattering manner.

Published by C. T. EVANS, 532 Broadway, New York.

☞ On receipt of the price in Funds current at New York, the copies of work will be sent to any part of the United States (within 3,000 miles) free of expense

*** All remittances, if sent in registered letters, are at the risk of Publisher

CHICAGO
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ORIGINAL COMMUNICATONS.

RARE CASE OF SPINA BIFIDA.

BY CHAS. M. ANDERSON, M. D., Minneapolis, Minn.

On the 16th of Nov. 1858, Mrs. N. was delivered of her second child. Nothing unusual was experienced during pregnancy, except a slight dyspepsia about the fourth and fifth months. The labor and presentation were natural. On examination of the child (a female), I found a Spina Bifida. The tumor was about the size of a hen's egg—somewhat pear-shaped, with the smaller end attached by a good sized pedunc-le. It did not differ from ordinary spinal tumors except as to locality. It was situated *between the occipital protuberance and the foramen magnum*—apparently emerging from a fissure in the posterior margin of the latter.

The child lived five weeks. It gradually became emaciated and died of vital exhaustion. The tumor remained nearly the same in size and appearance until death. The parents were adverse to any treatment which might look like "experiment."

Consequently little or nothing was done. No *post mortem* was allowed.

In other respects the child was well formed. The head and spine appeared natural, and for several weeks it took its food with a good appetite. I have examined the record of cases in the different books and periodicals at my command, and find this to be a very unusual case. Hence I have deemed it desirable to place it on record.

Prof. Brainard, in an excellent article on Spina Bifida in this *Journal* for Sept. 1859, speaks of a little girl, aged about six years, with Spina Bifida situated at "the occipital protuberance," "of the size and shape of a pear." This is about the only similar case that I find any notice of.

Rokitansky, however, has this remark: "The most common situation of Spina Bifida is the lower dorsal and lumbar region. Fissure of the sacral vertebræ is more rare: sometimes it occurs in two places together, and then usually one fissure is in the *neck*, and combined with hemicephalus, while there is another in the lumbar region."—*Vol.* 3, *p.* 177, *of Path. Anat.*

The above is certainly a rare case, but it is not alone in the science, several others being found scattered through different books, journals and transactions of societies. It does not appear that the death resulted from the malformation, although a deficiency of parts of the nervous centres sometimes coexists, with *spina bifida* incompatible with prolonged life. In regard to treatment it is doubtful if a case can be found on record of such a tumor in that situation treated in any way. If the child had survived I should have had no hesitation in advising the injection of iodine according to the rules laid down in the publication referred to by Dr. Anderson.

As this method is still regarded by many as experimental, I take the liberty of publishing a private letter from Dr. Ellinwood, of this city, a young gentleman now completing his medical studies in Paris, which indicates the estimation in

which it is held in France. Some of the cases treated in this country have been either unsuitable for any operation, or the operations have been repeated unnecessarily and performed imperfectly. There is indeed no class of cases requiring more careful discrimination and no operation demanding more careful attention to details and perfect adaptation of instruments. In the hands of M. Nelaton there is little danger of its losing credit. [B.]

PARIS, March 26th, 1861.

PROF. BRAINARD—*Dear Sir :*—It was with much pleasure I witnessed yesterday your operation for Spina Bifida performed by M. Nelaton, as "Brainard's Method," in his crowded amphitheatre. The distinguished Professor made some very interesting remarks on the disease; adopts your excellent memoir on the subject, and concludes that your operation—Iodine Injections—offers the greatest probability of success.

M. Viard is the author of an elaborate paper on Spina Bifida which was read before the "Société de Chirurgie" in November last, and published in the *Gazette des Hopitaux*. He reports your cases and many others treated by your method, showing very satisfactory results.

Very respectfully, C. N. ELLINWOOD.

TREATMENT OF UNUNITED FRACTURE.

IOWA CITY, April 10th, '61.

PROF. BRAINARD—*Dear Sir :*—I have the satisfaction this morning of adding another link to the chain of testimony in favor of your mode of treating ununited fracture.

The man Dwire, with ununited fracture of humorus, I have this morning "turned out" with a sound bone.

There is, (as we always expect in such cases), much emacia-

tion and want of muscular motion, in the affected arm, which a few weeks, with his general good health, will rectify.

Yours in haste, J. C. STONE.

The above case was one of fracture of the humerus, of over a year's standing, in which exsection had already failed according to the statement of the patient. It was therefore very unfavorable. [B.]

REMOVAL OF PAROTID TUMOR.

BY R. L. REA, M. D.,
Prof. Anat., Rush Medical College.

Mr. J. B., of Earlville, Ill., applied to me on Dec. 6 last on account of a tumor in his left parotid region. He was a young man, 22 years of age, farmer by occupation, of robust appearance, and had always enjoyed uninterrupted health. He received a blow on the seat of the present enlargement two years since. Soon after he noticed the beginning of the present tumor, which has continued to grow steadily and painlessly, but slowly, ever since, until within two months ago, when it began to increase much more rapidly, and, becoming alarmed, he desires its removal.

The tumor now occupies the space immediately below the ear, extending from it above, to a line parallel to and half an inch below the lower jaw, and from an inch behind the posterior margin of the sterno mastoid, forwards overlapping the ramus of the lower jaw to the same distance, making a tumor double the size of a hen's egg.

The tumor was nodulated, readily moveable, though it seemed to be attached by a small part of its deep surface, behind the ramus of the jaw. There was no tenderness on pressure, and while it seemed quite firm, there was undistinct fluctuation over a portion of it. It has never been painful in the slightest degree; no discoloration of the integuments, to

which it is closely attached, but seems, on a careful examination, to be free on its under surface, with the exception before mentioned.

On the following day, assisted by Dr. Lynn, and Messrs. Comstock, Minesinger and Mehler, students of Rush Medical College, I proceeded to remove it.

I made a crucial incision over the body of the tumor, found it enclosed by an almost cartilaginous capsule; after opening which, I had no difficulty in enucleating it, the point of adhesion, which I correctly supposed to exist behind the ramus, being carefully separated by the point of my finger.

No difficulty was had in its removal, and no vessels divided requiring ligature. The wound was closed by suture, except the lower section, which was left open to allow free exit to pus.

Dec. 8—Swelling considerable; ordered cold water dressings.

Dec. 9—Swelling still increasing; headache, with some fever, and wound quite painful. Upon examination I found the wound had healed almost entirely by first intention—the portion without suture healing with the balance, and the consequence was an accumulation of pus. A free discharge of matter followed opening it, removed the other stitches and and placed a tent in it. Ordered a saline cathartic and continuance of cold water.

At my visit the following day I found his febrile symptoms much abated; wound discharging; swelling diminishing, and from this no unusual symptoms occurred, and on the 12th, five days after the operation, he returned home.

The interest attaching to this case is in the relations of the tumor to the Parotid Gland.

It might readily have been mistaken for the Parotid from its situation and removed as such, while in reality it had no connection with it except at a very small part of its deep surface. The lower portion of the Parotid was found atrophied from pressure by the tumor, but that it was not enlargement

of the gland itself, was abundantly proven in the fact that none of the necessary results followed its removal.

It will be recollected that the formation of the External Jugular vein, by the union of the Temporal, Maxillary and Posterior Auricular veins takes place in the substance of this gland.

The Auricularis Magnus nerve, the largest ascending branch of the superficial cervical plexus, breaks up into its distributive branches, many of which join the Facial nerve, upon the Parotid.

The Auriculo-temporal, a branch of the fifth pair of nerves, passes behind the neck of the jaw upwards to the side of the head under cover of the Parotid. Whilst opposite the neck of the lower jaw it sends branches to join the Facial. The Internal Carotid artery and Internal Jugular vein rest closely against its inner surface.

The External Carotid artery passes upward directly through the gland, and while imbedded in its substance breaks up into its terminal branches, Internal Maxillary and Temporal, and gives off its Transverse Facial branch.

The Parotid completely embraces the artery and extends some distance beyond it, lying between the neck of the lower jaw and Mastoid process, occupying the posterior portion of the Glenoid cavity and resting against the Styloid process and Styloid muscles. It also embraces the ramus of the lower jaw extending beneath it forward between the Pterygoid muscles.

But by far the most serious complication in the relations of the Parotid, in reference to its extirpation, is the Facial division of the seventh pair of nerves. This nerve is one of motion, supplying the muscles of the side of the face. It escapes from the cranium at the Stylo-mastoid foramen, then passing forwards, divides behind the ramus of the jaw in the substance of the Parotid gland into its terminal and distributive filaments, which, spreading out in it, radiate to all parts of the side of the face, extending their supply from above the eyebrow to below the chin.

It will be seen by examining the relations here mentioned that the removal of the Parotid, while it is not impossible by any means, is nevertheless one of the most important and delicate in Surgery. The Facial nerve, from the delicacy of its filaments, and the intimate manner in which they are blended with the structure of the gland, renders their preservation in the removal of the entire Parotid an *impossibility*.

The complete removal of the Parotid will invariably be followed by paralysis of the muscles supplied by the Facial nerve of the affected side, the measure of paralysis being determined by the amount of gland removed, and consequent destruction of nervous substance. Any one who has carefully examined the relations of the gland on the dead subject, must have been struck with the amount of care required to detect any fair proportion of the distribution filaments of the nerve—much less to preserve them.

How vastly more difficult must be the task when the parts are filled with blood, bleeding at every point, and especially in that wedge-shaped mass of it filling the sulcus between the jaw and mastoid process, reaching behind the ramus, directly through which pass the primary trunks of this most important nerve. Add to this the fact that the diseased action necessitating its removal, has most probably caused adhesion to surrounding parts, and we may form some idea of the difficulties in the way of its removal leaving the nerve in its entirety.

These remarks and objections are intended of course to apply to normal formations and distribution of the several parts. I could imagine a case in which we had an abnormally small and favorably placed Parotid, the Facial nerve for instance passing entirely beneath it, when the termination might be entirely favorable. I think the cases where it is reported to have been removed, paralysis not following, must have been thus abnormally favorable.

I have said nothing of the External Carotid, the wounding of which is a matter of comparatively little consequence.

DE WITT COUNTY MEDICAL SOCIETY.

The Society met in annual session at the office of H. Goodbrake, in Clinton, on the second day of April. The President, Dr. J. H. Tyler, in the Chair.

The minutes of the previous meeting were read and approved.

On motion of Dr. Edmiston, Dr. Edwin Wallace Gideon was invited to participate in the proceedings of this meeting.

The following officers were then elected for the ensuing year:

Z. H. Madden, M. D., President; Thos. W. Davis, M. D., Vice President; Thomas K. Edmiston, M. D., Treasurer; Christopher Goodbrake, M. D., Secretary. John Wright, M. D., J. H. Tyler, M. D., J. C. Ross, M. D., Censors.

Delegates to the Illinois State Medical Society—John Wright, M. D., B. S. Lewis, M. D., and Christopher Goodbrake, M. D.

Delegates to the American Med. Association—J. H. Tyler, M. D., and Z. H. Madden, M. D.

The President elect then took the chair, and made a few very appropriate remarks which were well received by the members of the Society.

Dr. J. H. Tyler, the retiring President, then delivered the following valedictory:

Gentlemen of the De Witt County Medical Society:

We have met again in annual session, for the purpose of deliberating upon and discussing those diseases which have prevailed in our respective fields of labor since our last annual meeting, and to transact such business as is prescribed by the By-Laws of this Society; such as the election of officers for the ensuing year, the appointment of essayists, and the selection of subjects for investigation.

Gentlemen, permit me to direct your attention to a few facts relative to some of the diseases which have prevailed during the past year within the circuit of our county.

Among the great variety of diseases, if there is any one which has stronger claims upon the attention of the members of this Society, than any other, it is Diphtheria—from the fact of its extensive prevalence and great fatality during the past year. Doubtless this annoying difficulty which has recently visited our region, will receive especial attention at this session of the Society.

Quite a number of cases of dysentery occurred last autumn, but fortunately most of which, under appropriate treatment, terminated favorably; some, however, were of the gravest character, and notwithstanding they received scientific and well directed management, rapidly progressed to a fatal issue.

Malarious fevers, such as have been heretofore regarded unalarming and easily cured, assumed a condition peculiarly annoying to the practitioner and dangerous to the aged and infirm—many attacks bidding defiance to the most potent remedies and ultimately destroying the patient's life. One of the most prominent and useful citizens of this town, and an officer of this county, was ushered into eternity, by one of these attacks of bilious fever, in defiance of the best medical skill our county affords. Many other cases resisted all therepeutical means that could be devised, and death was the final result. The severe character assumed by these diseases the past year, in our midst, should excite a thorough investigation of malarious diseases.

Gentlemen, we now propose to say something in regard to this Society, as it appears necessary in all cases to take a retrospective view of our past history, in order to ascertain whether we have accomplished anything worthy of merit, or deserving of censure; and then we will be able to determine with some degree of accuracy whether this organization has effected or is approximating the object for which it was instituted.

On the 8th day of March, 1856, a few physicians met in this town at the office of Drs. Goodbrake & Edmiston, and after a free interchange of opinions in regard to the benefits that would be likely to accrue to the physician as well as to the afflicted, from a Medical Association in our county, the following resolution was adopted:

"That we, the Practitioners of Medicine and Surgery of De Witt County, for the purpose of promoting harmony and good fellowship, and of elevating medical and the collateral sciences, do associate ourselves together, &c."

After which officers were elected, a Constitution and By-Laws adopted, and in order to more clearly define the duty of physicians to their patients, the public, and their professional brethren, the National Code of Ethics was adopted. Since the meeting referred to, which constitutes the starting point of this Society, six annual and fifteen quarterly sessions have been held in different portions of the county, at every one of which interesting cases have been reported, able essays read, and the pathology and treatment of diseases thoughtfully discussed and carefully considered. Accessions have also been made, from time to time, to this organization, until at present nearly every regular practitioner in the county has become a member and contributes to its interests, and derives the inestimable benefits accruing from such a connection. There are doubtless quite a number in this county who receive the appelation of Doctor, and who are attempting to palm themselves upon this community as such, and who desire to be connected with this Society, but do not possess the necessary qualifications to entitle them to membership in this Society, and are therefore without the organization from necessity and not from choice.

The good feeling and friendly intercourse contemplated in the organization have been realized to a creditable extent, and our consultations, in the main, have been conducted strictly in accordance with the National Code of Ethics. But owing to circumstances (we trust of an unavoidable character)

some of our members have, in a very perceptible degree, transcended the bounds of medical propriety. Such being the case, we trust the reclaiming powers of the Society will be manifested in an effort to extricate these members from the unpleasant dilemma in which, as we fear, they have voluntarily placed themselves.

On motion, the thanks of the Society were tendered to Dr. Tyler, and a copy of his address requested to be incorporated with the minutes of this meeting.

Dr. Tyler reported a case of Endo-Carditis.

Dr. Madden reported a case of Uterine Hœmorrhage.

Drs. Edmiston, Adams and Davis were appointed Essayists for the next meeting.

Diphtheria was chosen as the subject for discussion at the next meeting of the Society.

On motion of Dr. Wright, it was ordered that the proceedings of the meeting be published in the Central *Transcript;* also in the *Chicago Medical Journal*, and *Medical Examiner.*

On motion, the Society adjourned to meet in quarterly session, at Santa Anna, on the first Tuesday of July next.

C. GOODBRAKE, M. D., *Secretary.*

EDITORIAL.

Practical Suggestion to Writers.—When you make a prognosis, don't have it printed until the event transpires. You will thus, on the one hand, escape mortification, and, on the other, gain great credit for acuteness and sagacity.

When you operate on a poor devil, always report the case while the patient is still living, or if, as is more than likely, he dies—don't trouble yourself to write out the history beyond the time when he was "as comfortable as could be expected." Remember that the chief point of interest with the profession in cases of this kind is, to know whether the surgeon still survives.

When you treat a fracture, or any case requiring mechanical appliances, never use any apparatus, however well adapted to the case, which any other man has used, or dreamed of using. Thus doing, should your patient accidentally recover with no more than two or four inches of shortening of the limb, or similar deformity, you can report the case with a description of the machinery employed, and thus get some other surgeon prosecuted for malpractice. *Mem.*—Suits of this kind serve to keep the profession before the public, and you perchance may be referred to as authority.

When you write, spare not the adjectives, but "pile up an appalling agony,"—for then shall all readers say: What manner of man is this, that even the "horrible" and "atrocious torments" flee before his scalpel, as consciousness before Letheon vapors!

When you fairly set out to report a questionable case, don't be mealy-mouthed about it—but make a sensation of the raw material, mindful of the (*modern*) scriptural apothegm: "It's of no use to be a fellow, unless you're a devil of a fellow."

When you report any system of treatment adopted by you,

t were fitting to record only those cases which escaped with ife, especially if after commencing upon the treatment, they present any alarming symptoms. In this manner you can llustrate the wonderful powers of the human system. You see at once if you should publish the cases which died "*in spite of the treatment*," it might tend to prejudice the profession against your system or methods, and *prejudices* ought not to be encouraged in an elevated and enlightened community.

Alcohol in Tuberculosis.—The Cleveland *Medical Gazette*, commenting on the conclusions of Dr. Davis upon this subject, observes that the author "is an ultraist on this question, and we are satisfied the *present* experience and opinions of the most of the profession do not coincide with these presented by him."

The *American Medical Monthly*, referring to the same paper, says:

We do not know that it would be possible to make Dr. Davis look with complacency upon any use of alcoholic drinks. From his papers, including with this some upon kindred topics, we judge that he is an uncompromising teetotaler; a man very good in his way, but not on that account the most fit person to judge of the effects of alcoholic drinks. Be that as it may, Dr. D. says, that within eight years "the idea was announced and rapidly circulated," that Bourbon whiskey and lager bier would prevent or retard the development of pulmonary tuberculosis. Immediately, he commenced a record of all his well-marked cases of tuberculosis, and this is the result of 210 such cases. Of these, 68 had used alcoholic drinks almost daily; 91 had used them occasionally; 51 had wholly abstained. Of the daily drinkers, only 15 "were such as are usually called drunkards," and 5 of these had delirium tremens when admitted to the hospital.

From these premises the author argues, that these drinks do not prevent or retard the development of tubercle, for these, in fact, are the premises, though drawn out by brief reports of several cases. But the conclusion is not logical. No one has asserted that a person who drinks alcoholic beverages will not have consumption. If such a statement *had* been made,

these cases, or rather three-fourths of them, would prove it false. We do not remember to have seen or heard "the idea announced," which was the cause of the statistical record of our author; but in order to meet such a statement, observation must be made on a more extended scale. Thus, it doubtless is true that a good portion of the population of Chicago, especially of the class of poorer foreigners, from whom most of Dr. Davis' patients were drawn, drink wine, beer, or the stronger spirits, either occasionally or habitually. Now, does phthisis pulmonalis prevail among them more than among teetotalers? Do those who are of tuberculous families develop this disease more certainly or more rapidly if they use these beverages than if they totally abstain? We do not intend to be understood to answer these inquiries in the one way or the other, but to show how the author of this paper wanders from the logical answer to the inquiry which is his text.

In fact, Mr. Davis' argument might be turned against his own position, as in this way: Of the adult population of Chicago, it is a large allowance, that *one-tenth never* drink alcoholic drinks, including wines and beer. We find in the record, that of the 210 cases, 51 were teetotalers; that is, nearly one-quarter of the patients were from a class which would be fully represented by one-tenth, 21 instead of 51.

No doubt the records were made and the paper prepared with the best of intentions, but it is our duty to point out the fact that it is illogical, and being so, it fails of its intended purpose as an argument.

May we go so far out of our way as to say that this want of logic has been the cause of many of the errors made by the leaders of the total abstinence movement? Utopian ideas of what should be and can be done, have repeatedly led them to enact laws, such as that known as the Maine law, which have been inevitably followed by a reaction, and intemperance thus been increased, not diminished. But it is always thus with enthusiasts, and we must endure this infirmity of our nature.

It is worth noticing in this connection that there is nothing more worthless than so-called medical statistics, as too frequently compiled. In practical medicine there is scarcely anything more deceitful than the multiplication table. You can accumulate case upon case in myriads, and yet unless there is something "prerogative" about them, they prove nothing.

Is it necessary in this age of progress to repeat this simple philosophical proposition? It would seem so.

Now alcoholic beverages may beget the necessary conditions of tuberculosis, by inducing local changes in the chylopoietic viscera, thus causing imperfection of the nutritive and assimilative processes. So may endemic, epidemic or even sporadic diseases. So may the bran bread and water gruel of the vegetarians. So may debilitating influences of any kind, sexual excesses, mental emotions, inordinate bathing, &c., &c. You can prove each of these propositions by manifold and multitudinous experience and statistics. All these various, and sometimes apparently opposite, causes have one essential link of connection, and this is the grand, Baconian, "prerogative fact" of the series, they prevent or exhaust the nutrient supply of normal blood. Whether we believe that there is excessive metamorphosis of tissue, thus impairing the quality of the blood; or (as some believe) too little metamorphosis, either from deficient sanguineous pabulum or whatever cause, it is seen in every case that we must come back to the blood and blood-influencing processes in every case. It is as true now in the light of modern science, as centuries ago in the light of inspiration: "The Life of man is in the blood." The teeth and salivary glands, the stomach and entire digestive and assimilative organization; a localized organ, or the pervading nervous system; the character of food and drink, the habits or meteorological surroundings, may each, or all combined, tend to render that blood either incapable of building up healthy tissue in a normal manner, or of supplying the waste of metamorphosis—or, perhaps, surcharging it with imperfectly organizable material which exudes from the vessels among the textures, but not to become of them.

An almost infinite variety of remedies have been proposed for "consumption"—and each of them has been from time to time backed up by a formidable array of statistics. Bloodletting and Mercurials, Antimonials and Digitalis, Cimicifuga and Chlorate of Potash, Prussic Acid and Strychnine, Hot

Water and Cold Water, Canada and Cuba, the Mammoth Cave and California, the Cow Stable and the Sugar House, with a multitude other which no man can number even with the aid of the "medical multiplication table," have each had their advocates and their statistics. Legitimate medicine has been sneered at for its apparent contradictions in this respect. The sneer is uncalled for—the scepticism based upon it is unfounded. This is not a Gordian knot which needs cutting even by a surgical scalpel—it can be untied in a trice, by any reasonable thinker. Any—nay, the most antipodal agencies may be required in cases labelled Phthisis.

It is almost incomprehensible that professional gentlemen who have repeated again and again the truism, no case of disease is to be treated simply on its name, but solely according to its indications in the particular case, should now be going about seeking what is not, or is "good for Phthisis." Deluded Friend—Phthisis is not an entity attacking the poor patient as Joab smote Amasa—it is not a spirit from the vasty deep attacking with its unseen javelins the "properties" of the tuberculous lungs, but an effect, the concrete sum of all the causes operating upon the system. Each case is to be scrutinized in all that influences it, and when the morbific causes and results are discovered, they are to be met, not necessarily by Alcohol or even Chlorate of Potash, but, *according to the indications*, precisely as you would rationally treat any other form of disease. We may conceive thus that even the most opposite methods may be called in to assist, not for the phthisis, but to aid in so far as competent in removing its local or general causes.

In the case before us—that Alcohol will beget phthisis is indubitable. Who has not seen cases of "Rum Consumption?" That it will often aid immensely in the relief or actual cure of the disease, are there not abundant evidences? Hundreds of physicians, aye and as good teetotallers as the essayist himself, can attest the fact in their own experience and observation. "There is a soul of goodness in things

evil,"—even in Alcohol. Mercurials have been abused in practice; shall they therefore be abandoned? As elsewhere written, that which is capable of producing a change in the system is truly medicinal and salutiferous, if that particular change is needed. If that change is not needed, it is a poison in use. In this sense Alcohol may become a poison, and, as such, ought not be employed, here or elsewhere.

Syphilization.—This intolerable, yet apparently interminable, nonsense still finds advocates in Paris. It will be recollected that the first two young men who volunteered inoculation fell victims to the folly. One died of the disease, and the other committed suicide under its deplorable effects upon the system.

M. M. Sperino and Boëck assert:

1. That repeated inoculation with chancrous virus produces immunity.

2. The symptoms of constitutional syphilis disappear under the influence of the inoculation.

3. Syphilization acts in a beneficial manner on the health of the patients.

To all of which we demur and return thereupon the Scotch verdict—*not proven*. It is painful to see such respectable journals as the *Gazette Hebdomadaire* giving publicity to such superlative trash.

It *is not* necessary that because a man is a Doctor, or even a medical writer, that therefore he should be an ass. But if the truth of the propositions above given could be shown, it would be glorious news to some of the Chicago roughs. "A hair of the same dog," &c. *Vive la bagatelle!*

Deaths.—A very considerable mortality is prevailing among the Medical Journals. We have not space for appropriate obituaries. Not one of them but had a large stock of original vital energy, but *pabulum vitae*, in the shape of paid-up

subscriptions, was wanting. *Quis talia fando temperet a —cogitationibus!* Gentle Reader, how stands your account with the C. M. J.?

Philadelphia Colleges.—It is understood that in consequence of the slight bonds which now hold "these (remaining) United States" together, and in view of the contingency of impending isolation, of that city, all the appointments to positions now, or about to be, vacant, will be made from among the citizens of Philadelphia only. Unpleasant news certainly to sundry outsiders, but clearly politic so far as the residents of that county are concerned. It is always advisable to take in sail during storms.

Ascarides.—Dr. Wm. Scofield, in the *Journal Mat. Med.*, recommends: "Oil of Turpentine and oil of Pumpkin seed, of each half an ounce; rub them together with the yolk of an egg, and suspend the whole in a pint of water. To be used as an enema." Plain common salt water, or, better perhaps, a suitable quantity of infusion of quassia, or other vegetable bitter, with a spoonful or two of common salt thrown in, is equally as effective and more convenient. We look upon common salt, freely administered, as the best permanent remedy for this sometimes troublesome affection. It is equally efficient against lumbrici. Parents ought to see to it that their children's food is thoroughly seasoned with salt—a thing too often neglected with resulting mischief of this and other sort.

Puerperal Convulsions.—This subject is again attracting considerable attention from the medical press. Irrationa methods based upon false pathology are being discarded in the better circles of practice. It is beginning to be under stood that the convulsions of the puerperal state, are by n means analogous to those resulting from apoplexy or ence phalic inflammation. Generally the convulsion is a refle

nervous phenomenon—hence amenable to chloroform and other sedatives and antirritants. Sometimes it is really dependent upon uterine hæmorrhage. Convulsions are among the common sequelæ of hæmorrhage whatever the source. They can be produced at will in the lower animals by cutting off or materially reducing the supply of blood to parts. The well known experiments of Dr. Radcliffe forcibly illustrate this. Bloodletting may by its immediate and powerful influence upon the nervous system, sometimes control the eccentric nervous phenomena, but this effect can usually be better secured by other and non-spoliative agents. It is safe to say that excessive bloodletting in puerperal convulsions is not in accordance with the dictates of modern science—nay, more, it is utterly opposed to them. Repeated bloodletting in the same case is either preposterous or worse. Chloroform or Ether, the warm bath, properly selected narcotics, or even stimulants, in their modern use, have wonderfully lessened the terrors and dangers of this formerly often fatal difficulty. Bloodletting possesses a potent influence over the nervous system in common with many other agents; but besides this it wastes and spoils the powers of life. Why use the, collaterally, destructive agent, when others are at hand without attendant peril? The gross mechanical notion of pressure of blood upon the great nervous centres ought by this time to be abandoned, and with it the practice based upon it. Some persons are beginning to ascertain that there is a nervous system, implanted on the organic framework.

Rationale of the Action of Mercurials.—A contemporary endorses the opinion that the action of Mercurials consists in the *restoration of capillary power*, and considers that this affords "a wonderful clearing up of many of the apparent inconsistencies, incongruities and mysteries of their operation. Their alterative effect in chronic inflammation is immediately revealed. They correct the unhealthy state of the capillaries by causing them to contract upon their contents."

In other words, the restoration or increase; sometimes also, be it recollected, the diminution of secretion; the resolution of tumors and indurations; the absorption of exudations and effusions, and relief of chronic inflammations, is brought about by the capillaries contracting upon and hence squeezing out their contents. Compendious, truly! All that is requisite then to replace this so much dreaded and maligned mineral is to find something which will squeeze out the contents of the capillaries, as he of the "Institutes" has the varied secretions squeezed through *open pores*. Here is a chance for immortality in dethroning King Mercury. Wanted—A power to squeeze out the contents of the capillaries! Will cold, or pressure, or electricity, or animal magnetism do it? Seriously, however, the advance of physiology has shown, if anything, that there must be material changes developed wherever a manifestation of power, or "property," is to be presented. The condition of the capillary depends upon the blood which it contains, the cells and fluids around it, and the nerve conductors by which changes within and around it are influenced. The poisoned, medicated or healthy blood directly impress the capillary parietes; molecular changes at the other extremity of the nerve conductor influence it; direct or communicated modifications in the cells and fluids around control it. Each and all of these are to be taken into account in studying the changes induced in the part affected by this or any other medicine or agent. The contraction of the capillary is but a single incident in the series of phenomena. The microscope is eloquent and conclusive here. The intimate changes characteristic of simple vegetative life are carried on by fluid, capillaries and cells alone—these influenced only by the nutrient fluids drawn from the soil beneath, gases from the air around and local causes in the growing part. In the animal there is superadded a nervous system which links even the remotest parts, so that a molecular change in one, through the beautiful conducting nerve fibre, influences molecular change and action in the other. Mercury interferes largely with one o

all these molecular changes, beneficially or otherwise, as the case may be. It is probable, from the phenomena observed, that it especially increases the rapidity of cell actions, sometimes perhaps diminishing them, but always by changing molecular action in the part. Whether the capillary contracts or dilates thereupon, is altogether a secondary matter, as much so as when a muscle contracts whether extension or flexion results.

How long will, otherwise enlightened, physicians consent to receive either, on the one hand, the flatulent abstractions of old galvanized vitalism, or, on the other, bald mechanical and chemical fancies? It may be laid down as a solid axiom that whatever influences the animal body produces a molecular change in it—thus whether it be from so-called physical or mental forces. It is nonsense to call a man a materialist because he points out the demonstrable fact that even the mind itself, in the spacious or restricted circuit of its musings or manifestations, continually disintegrates the tissue upon which, or through which, it operates. It is this disintegration or molecular change which enables the organized part to manifest its "properties" of whatever character. When we get rid of a little more of the *debris* of old solidism, we shall see more clearly into very many things. The good work is going on, notwithstanding the *reactionaires*, with Don Quixotte-de-la-New-York at their head. Courage, Friends!

Cardiac Disease.—Prof. Flint, in a recent clinical lecture at New Orleans, observes: "Patients affected with merely functional disorder, have their attention concentrated on the heart, and are with difficulty persuaded that they have not organic disease; while patients really affected with organic disease, are disposed to attribute their symptoms to an affection of some other organ; for example, the liver or the stomach."

This curious fact is attested by other observers. It is well known that in phthisis there is a similar feeling. Pertinent

to this is an old Hibernicism by an Irish physician, himself affected with phthisis: "I know, by this token, I have sorra a bit of consoomption about me, for, bedad, I believe I have."

A Practical Treatise on Phthisis Pulmonalis; embracing its Pathology, Causes, Symptoms and Treatment. By L. M. Lawson, M. D., Prof. of Clin. Med. in the Univ. of Louisiana, &c. Rickey, Mallory & Co., (now Rickey & Carroll,) Cincinnati; 1861. From the Publishers.—"Good wine needs no bush," neither does the name of Prof. Lawson require any introduction to the Northwestern public. Everywhere he is known as an earnest, industrious, acute and sagacious medical scholar and practitioner. When it was first announced that he was about to publish a book on Phthisis, we confess to a temporary dissatisfaction with the choice he had made of a subject. The classic treatise of Dr. Walshe, and the learned, elegant and philosophic work of Prof. Flint, respectively, seemed to leave the field barren for other writers for some considerable time to come. But on perusal of the work as it now lies before us, we admit our mistake, and return our sincerest thanks to Prof. Lawson for his very valuable contribution to American Medical literature.

This is emphatically an American book, and cannot be properly replaced by any other work extant on the subject. The author's investigations upon the subject of the various local climatic influences of our widely extended country, are invaluable and practically highly suggestive. He is of the opinion that the disease is much more prevalent at the North than the South. This opinion, although a very general one, nevertheless has been strongly contested. His argument, from the facts, seem quite conclusive of discussion. The four principal divisions of the subject: Pathology, Etiology, Semeiology and Therapeutics, are each carefully considered and elaborately set forth. Among many things which we should be pleased to reproduce on our pages, we select his summary of the characteristics of tubercle:

"1. The tuberculous element originates in the metamorphosis of the tissues.

"2. It seeks elimination through the lungs, and may continue to pass, in certain quantities, for an indefinite period, without inducing local deposits.

"3. When the morbid element reaches a certain degree of concentration, or when, by long-continued action, it produces a morbid effect on the lungs, local deposits take place.

"4. The first deposit is the elementary morbid substance known as the amorphous stroma; this is followed by the development of molecular granules and peculiar cells, which constitute *tubercle*.

"5. After the existence of solid tubercle for a given period, it softens, and the debris seeks elimination through the bronchial tubes.

"6. The morbid action extends to the adjacent tissues, causes inflammation, softening, and disintegration, too often resulting in fatal disorganization.

"7. The perfect uniformity of tubercle throughout the body, in whatever tissue or organ deposited, exhibits strong evidence of the specific character of the disease, and that it could not originate from the ordinary derangements of nutrition.

"8. The chemical and histological character of tubercle favor the opinion that the whole process is specific in origin and development."

The therapeutics of Phthisis in the main coincide with those adopted by the better informed classes of American physicians. Alcoholic stimulants, tonics, cod liver oil and other nutrients, are the most highly esteemed.

We conclude with his summary of conditions of cure:

"The conditions which justify favorable prognosis may be thus stated:

"1. When the tubercles are limited to one lung, are not very extensive, and have not been associated with inflammation, either as a sequence or an inducing cause.

"2. The general health remaining in a fair condition, without rapid emaciation, fever, or derangement of digestion.

"3. A hereditary tendency to phthisis being slight or entirely absent.

"4. The patient possessing naturally a good constitution, with a sanguineous or nervo-sanguineous temperament.

"5. The occupation being favorable, or at least not of a

character to induce phthisis, or the patient being in a condition to make a change to a more suitable business.

"6. The patient having confidence in his medical attendant, and a willingness to submit to treatment, and the ability to avail himself of all incidental means and conditions capable of favoring his recovery, including a change ef climate.

"7. A cheerful and hopeful mental constitution, and a desire to contribute his share to the successful treatment.

"These are conditions which justify a favorable prognosis, although patients may, and often do recover, when the circumstances are much less propitious.

"The unfavorable elements of prognosis may be thus enumerated:

"1. When tubercles occupy both lungs, to a considerable extent, or involve a large portion of one.

"2. When the disease has advanced to the stage of softening, with extensive disorganization of the pulmonory structures.

"3. The general health being greatly impaired, as shown by the existence of extensive emaciation, deranged digestion, hectic fever, and night-sweats.

"4. A decided hereditary tendency to phthisis, and especially if received by a son from a father, or a daughter from a mother.

"5. A naturally feeble constitution, with a phlegmatic or bilious temperament.

"6. The occupation being unfavorable, and the patient not able or willing to make the proper change.

"7. The patient being of a fickle disposition, wanting confidence and perseverance in medical treatment, and unable or unwilling to secure the advantages of a change of climate, and other incidental means of relief."

Tracheotomy in Croup.—The Boston *Med. Jour.* records two recent cases of tracheotormy in croup, in which each recovered. Ages respectively 5½ yrs. and 1 yr. and 7 months.

Action of Potash, Soda, &c., on the Urine.—Wm. Moss, M. D., of Philadelphia, reports in the *Am. Jour.*, April 1861, a series of experiments, on himself, with reference to the effects of various substances upon the urinary secretion. As the result of this inquiry, it was found that the Acetate of

Potash still maintains its superiority in every respect as an eliminant through this channel—increasing to the greatest extent both the solid and fluid excretion. Next in efficiency was the Carbonate of Lithia, a saline which has recently been highly commended as an eliminant by Dr. Garrod and others. The latter agent is suggested in cases of gouty diathesis. Thirty grs. render urine the strongly alkaline.

Sydenham and "the rest of Mankind."—In a recent number of a highly respected contemporary (*Nashville Journal*) are to be found the following observations:

"There is no connection between medicine and state, and politics have never exerted any influence upon the former. It can never become sectional—it never *was* sectional. It is alone bounded by the confines of sin and misery. Its great and good professors lived through the convulsions of revolutions baptized in blood, without considering such political metamorphoses of sufficient importance to speck their immortal pages by a bare allusion. Sydenham wrote and practiced during the troubles of the Cromwellian revolution, but nowhere even incidentally alludes to them. When London, the city of his residence, was almost destroyed by the great fire of 1666, although an event afterwards noticed as exerting a favorable influence upon its diseases, the great master leaves this physical, with the religious and political revolutions of his time, uncommemorated by a word. He, whatever his works as a man, as a physician, lived and moved and had his medical being in a purer atmosphere."

The object of the writer of the above was certainly a most commendable one—particularly at the present disturbed juncture of political affairs. It is fervently to be hoped that medicine may not follow the politicians into the chaos of sectional strife. Nevertheless it is to be hoped that the author does not quote the example of Sydenham, in this respect, as "one worthy of all imitation." On the contrary, it is clear to the professional mind of the present day, that to properly understand man and his diseases, there must be an acquaintance with *all* the influences operating upon him. Not only local causes and the "constitution of the atmosphere," but all those

recondite, but immensely potent, causes which impress his nervous system, the greatest disturbing influence to which the material frame responds. The changes of the material atmosphere are slight and trivial in their effect, compared with the tremendous changes wrought, even in man's physical constitution, by the mental and moral influences which surround him. These will vary "the type of disease." They will originate new forms of disease; modify or wholly banish the old. The mental and moral forces, operating through the nervous system of the human being, are not mere fantastic shadows, evanescent and infinitesimal in their impression, but grave deep and lasting marks upon the material frame. The mental and nervous forces are as truly potential in determining molecular changes, and consequent functional manifestations, as are heat and light, electricity and magnetism. It is positively fatal to overlook them—the Hamlet of the play. Sydenham can then only be properly interpreted, when we consider that he wholly overlooked, probably, the dominant influence operating on human bodies. The fault extends even to our times, to our standard books, to our standard methods of practice. Nervous forces are neglected or passed over with slight and scanty notice. We diligently scrutinize the blood and all secreted matters for evidences of change, which sometimes we mistake for the cause of change. We carefully note all meteorological influences, but we too often fail to examine into the highest and strongest forces to which material mechanism succumbs. The forces operating through the nervous system do not exhaust themselves in merely influencing "properties," but in causing positive changes in integral structure, and this not only in nervous and muscular tissue, but upon the blood and all fluids, upon secreting glands and surfaces, and upon all parts where modifications are possible from any cause.

Whilst these influences are capable of causing disease, they are likewise, in the hands of the wise physician, powerful to control morbific action. And this not occasionally or acci-

dentally, but constantly and by well defined laws. We may relieve or cure disease by the changes produced by medicines; we may do the same oftentimes by material changes brought about by the operative energy of the mental and nervous forces. Their laws of action are what now demand the close investigation of all enlightened physicians.

The Pious Dodge.—Dr. Brannock of Tenn., chronicles in a recent address an instance not unprecedented:

"A young lady who was remarkably nervous and timid was taken sick, and became very much alarmed. To quiet her fears, and the apprehensions of the family, more than from anything serious about the case, a consulting physician was brought in. He came, approached the bed-side, told her not to be alarmed, that he would cure her, called her *daughter*, kissed her, patted her cheeks, smoothed the hair back from her brow, and raising her gently in his arms he gave her a dose of some simple medicine, then kneeling by the bedside he poured out in strains of the most touching eloquence a petition to Almighty God for her recovery. As might be supposed the young doctor was completely laid in the shade; and the sequel to the story was he got no more practice in that family. Dr. so and so was their family physician. He was *such a good man*, they said."

We knew of a case where the consulting physician, in order to convince the patient and family (in a case of common remittent) of his extraordinary zeal in ascertaining the facts of the case, after having gone through with an unusually long and tedious examination, including the use of a stethescope applied to every known part of the body, wound up by dipping his finger in the chamber vessel and tasting the urine! He had him there!

Fracture of the Femur.—In the N. Y. State Med. Soc. Dr. Swinburne read a paper advocating treatment of fractures of the femur by simple extension. The pelvis is to be fixed by a perineal belt adjusted and secured by means of adhesive straps applied to the leg so arranged as to bring equal pressure upon the integuments and leaving loops through which a

cord is passed and fastened to the foot of the bed. No splints or bandages are employed, the powerful muscles and fascia of the thigh answering every indication. He claims very considerable advantages for this method and reports a number of cases during an experience of ten years. Average period of extension five weeks, although in the majority of cases union was firm in three or four weeks. But little extension is needed for the first fifteen days. Extension after that period will secure proper length of the limb.

AMERICAN MEEDICAL ASSOCIATION.

Why is not something said or done about what every one admits to be not only desirable but an unqualified necessity—the adjournment of the Am. Med. Association until the return of quietness? It is folly—sheer unmitigated folly, to talk about meeting in Annual Session whilst the American body politic is convulsed and the different sections of the country arrayed in arms against each other. It is nonsense to talk about Medicine having nothing to do with politics when the sword is drawn as the arbiter of national destiny, and the avenues of communication between the North and the South are in the hands of irrepressible mobs or armed soldiery with very little respect for the Medical profession ("*per se*") above any other men on their travels. The American Association for the Advancement of Science, long since recognized the stern necessity of the case and prudently postponed their meeting appointed at Nashville. Let those who have the matter in charge do the same thing for Am. Med. Association and thus avoid the inevitable and disgraceful "*fizzle*" which is otherwise as certain as destiny.

Where are the Committee of Arrangements, and why do they not move in the matter at once? Or let the President of the Association promptly issue a manifesto on the subject.

We have waited, for reasons readily suggested to any thinking mind, for those at a distance from Chicago to ventilate the

subject—but the stirring events of the hour have evidently caused the Association to be wholly forgotten. It is useless to disguise the matter, the meeting is already adjourned by the condition of the country at large, as effectually as Cromwell adjourned the Long Parliament. Are we to be edified by the pitiable farce of half a dozen ambitious gentlemen assembling in infinitesimal conclave and portioning out the names of the offices among themselves? Is this to be the "lame and impotent conclusion" of the great American Medical Association?

Let us have no idle doubts about constitutional powers to postpone. Whilst you are doubting the thing is done by a higher power—a necessity which knows no law. Rub up your classics, Messieurs Officials, and recollect—*inter arma, leges silent.* We do not wish to be misunderstood—we shall not be misrepresented save by inherently contemptible natures,—we would gladly hail and welcome all our professional brethren, from the Atlantic to the Pacific, from Hudson's Bay to the Isthmus, but we cannot consent to have the Chicago session of the Association hereafter a by-word and a reproach.

Who shall make the official proclamation? We fervently trust that even before this number of our Journal goes out to its readers the words we have written shall have been anticipated in action, either by the President of the Association or by the Committee of Arrangements.

Pray God the time speedily return when the continent shall again see peace, and the peaceful efforts of the Assooiation be nevermore interfered with by the turmoil and confusion of civil war.

MEETING OF THE ALUMNI OF RUSH MEDICAL COLLEGE.

The invitation to the Alumni of Rush Medical College to meet in this city, the day prior to the time appointed for the session of the Am. Med. Association, we are requested to recall. Now is not the time to commence any such organization

as that contemplated in the original call. Events have crowded upon the country which must temporarily put this on one side, as the Association itself is already displaced. Other and better times will come when *alma mater* can greet her alumni under happier auspices. An Association of the Alumni will eventually be formed, but not now when the times are out of joint When "white-winged Peace" comes again to the distracted country there will be time enough to cultivate all peaceful associations.

Discreditable.—Scarcely any more striking exhibition of folly and fatuity has recently occurred, than was presented in the present Legislature of Illinois a few days since. The Legislature, at the suggestion of several distinguished medical gentlemen of the State, had provided for a board of Medical Examiners to investigate the respective qualifications of the large number of applicants for surgeoncies in the new regiments. Either to defeat the object of the bill, or to gratify innate littleness, (for which he has been previously somewhat eminent,) a person whom, as a penance for their manifold sins, the people of Chicago had been obliged to elect a member of the Legislature, undertook to foist upon the Board an obscure Homœopathist of this city. It was but a bare chance that the profession escaped the deep disgrace of having this individual elected over the worthily eminent Dr. N. S. Davis, finally chosen. The thanks of the profession are especially due to the Hon. Sol. M. Wilson of Chicago, for baffling the discreditable attempt of the "*wildcat*" legislator.

Surgeons to the Militia.—It is stated that for the position of surgeons to the new Illinois regiments, (at the time there being but six to be provided for,) there were over *three hundred and fifty* applications. Who after this will undertake to say that patriotism (with good pay,) is at a discount among Doctors? Eyes right! Draw—Scalpel!—Carve—at a venture!

Pessaries.—The late work of Dr. Hodge has revived inquiry into the real advantage of pessaries, and other mechanical adaptations, for the support of the uterus in its normal position. Thus far the weight of evidence seems strongly to incline against these agents, as anything more useful than temporary palliatives. The speculum, the pessary, the supporter, *et id omne genus*, have each been prodigiously overrated.

The tendency has been to mistake effects for causes, whether with regard to abrasions, ulcerations, prolapsions or versions.

By far the larger proportion of these various difficulties are directly traceable to causes removable, not so much by medicines or mechanical agencies as by correction of habits and regimen. Thus the abominable load of ' bustle," skirt and petticoat which women will insist upon wearing is chargeable with the greater part. Then the tendency of even the most angelic of the sex to forget the necessity of regular unloading of the reservoirs of excrete matters. Luxurious cushions and (abomination of abominations!) feather beds; want of exercise, and hot, ill-ventilated rooms. A little common sense brought to bear upon the vast majority of these cases will let vastly more light upon them even than peering through a speculum passed (*horribile dictu!*) through a hole in a sheet. If there be any one object we hold in deeper contempt than a "womb doctor," loaded down with his armamentarium, like an ass under heavy panniers, we have yet to discover the luxury of that lower deep.

Dissection Wounds.—Garrigon revives, in the *Gazette des Hopitaux*, the old practice of keeping the dissection wound soaked in chlorinated water. "This application will always be found efficacious, provided purulent infection have not already set in, when it will be useless."

Sugar Antidotal to Alcohol..—Pure white sugar is proposed as an efficient remedy for drunkenness. The idea is based

upon chemical considerations. It can scarcely prove more than a theoretical medicine in the case, for very obvious reasons. Brandy and sugar notoriously are equally efficient in producing intoxication as "plain brandy—straight."

Asphyxia.—Prof. Thayer objects to the proposition of "the necessity of keeping up the heat of the body during suspended respiration." His plan in such cases is "to expose the body to the air at a temperature considerably below that of the natural heat of the surface, during the continuance of the efforts for restoring respiration. As soon as respiration is established, the body requires the protection of warm clothing, and in the newly-born especially needs the most thorough covering from the air." He founds his practice upon the results of the experiments of Edwards, Astley Cooper, Nunnely and Marshall Hall. The point is worthy of farther elucidation.

Bloodletting et alii.—The venerable Dr. Alexander H. Stevens, in some recent remarks before an eastern medical society, is far from occupying the ground which Prof. Gross has so strongly insisted upon. He fully admits the difference in type of diseases at different times and diverse localities. He observes: "Practical men do not treat their cases altogether, or chiefly, according to their place in nosology. Diseases are not mere names. They are not abstractions. Nature knows none such. The condition of the system, more than the name of the disease, guides the skillful practitioner. Disease of the same name sometimes require a purely tonic treatment; at other times a mixed treatment, and again an antiphlogistic treatment throughout all its stages. These variations are those not only of time, but of place."

Formerly having found much benefit from free bloodletting, both in his own case and his patients, he nevertheless says: "I no longer or very rarely find, at the present time, the indi-

cations for bleeding as laid down by John Hunter and other observers."

"If the practice of fifty years ago were now put in force, patients would be killed outright. They would die before the physician could get out of the house, and our Galens, instead of being saluted with the words which Dr. Robert Jackson has made familiar, 'Oh, sir, you have cut the throat of the fever,' would be told, 'Sir, you have butchered your patient."

Nevertheless it is not fitting or right to say that the practitioners of old time were much in error—simply because it is clear that the type of disease has changed, and we may expect will continue to change, as men and their surroundings undergo various mutations. But in one thing there will be no mutation; so long as there remains respect in the human heart for *the true physician*, so long will Alexander H. Stevens, the Nestor of the American Profession, remain *clarum et venerabile nomen.*

☞ In medicina facile est per ea ipsa interdum decipi, quae facere videntur ad vitandas deceptiones.—*Morgagni.*

☞ Aegri persuasio et fiducia omni arti et consilio et medicinæ, præferenda.—*Avicenna.*

ADJOURNMENT OF THE JUNE MEETING OF THE AMERICAN MEDICAL ASSOCIATION

FOR ONE YEAR.—OFFICIAL NOTICE.

On a previous page will be found the sentiments of this Journal with reference to this common sense movement. The form containing that article had passed through the press and was "past praying for," a week before the reception of the official notice published below. It is to be expected that some grumbling will be heard from divers and sundry individuals whose only hope of notice in the professional world is their

annual exhibition of themselves in the Association, but there can be no doubt that among all sensible, thinking and right-minded members of the Association, this motion will be hailed as one eminently "fit to be made." Reserve your ammunition, Gentlemen of the pop gun order, one year longer, "until you see the whites of the eyes" of your subjects. Bottle up and condense your gas to some degree of sensible solidity. Employ the year in solid work and come next year prepared for some other business than rising to points of order, squabbling over the code, and ventilating your little stock of nonsense about medical education. [*Confidentially.*—The noisiest babblers about raising the standard of medical education we have ever listened to on the floor of the Association, have been those who most astonishingly illustrate in their own persons the necessity for a home-stock of the article.]

The supply of educated medical men will always equal the demand. The force-pump wont improve the matter.

Messrs. Editors of the Chicago Med. Journal:—Please insert the following notice in the May number of your Journal, and oblige your readers. N. S. DAVIS.

American Medical Association.—In accordance with the unanimous advice of prominent members of the Association in the Eastern, Middle, Southern and Western States, we, the undersigned Committee of Arrangements, hereby give notice that the Annual Meeting of the American Medical Association, appointed to be held in the city of Chicago, on the first Tuesday in June, 1861, is *postponed* until the *first Tuesday in June*, 1862.

Chicago, May 1st, 1861.

N. S. Davis,
J. W. Freer,
E. Andrews,
DeLaskie Miller,
Thos. Bevan,
J. Bloodgood,
H. W. Jones,
} Com. of Arrangements.

TABLE OF MORTALITY.

PER CENTAGE IN SEVERAL OF THE LARGER CITIES OF THE U. S. FOR SEVERAL YEARS PAST.

The large comparative mortality in 1854, it will be recollected, depended upon the Asiatic cholera especially cutting down emigrants. The general result of the table scarcely needs comment. Chicago is a healthy city.

	Boston.	N. York.	Philadel.	Balt.	Charles'n.	N. Orl's.	St. Louis.	Cinn.	Chicago.
1841—	....	....	....	....	....	....	....	.....	....
2—	....	....	....	....	....	....	....	....	....
3—	....	....	....	....	....	....	....	.....	1.56
4—	....	....	....	....	....	....	....	.....	2.56
5—	....	....	....	....	....	....	....	.....	2.38
6—	2.59	2.61	1.70	2.35	2.09	4.13	3.80	.....	2.30
7—	3.10	3.46	1.89	2.58	1.82	8.31	4.62	.....	2.88
8—	2.84	3.25	1.92	2.76	2.32	6.95	3.86	.....	2.60
9—	3.79	4.64	2.28	2.84	2.75	8.05	10.62	.....	5.30
850—	2.64	3.07	1.96	2.49	2.85	6.03	5.04	.....	4.72
1—	2.68	4.05	1.97	2.40	2.25	5.25	4.39	.....	2.56
2—	2.52	3.63	2.47	2.79	3.59	5.88	4.44	.....	3.44
3—	2.80	3.64	2.01	2.58	2.39	10.24	3.32	.....	1.99
4—	2.82	4.46	2.39	2.89	4.27	6.57	5.35	.....	5.39
5—	2.54	3.43	2.03	2.65	2.18	....	....	.....	2.46
6—	2.59	3.06	2.40	2.67	2.86	....	....	.....	2.17
7—	2.36	3.16	2.09	2.55	2.36	....	2.88	.....	2.17
8—	2.25	3.06	2.00	2.64	....	....	2.92	.....	2.04
9—	2.14	2.82	1.77	2.23	....	....	3.05	.....	1.75
860—	2.47	2 79	2.04	2.27	....	....	3.55	.....	1.88

To Subscribers.—All subscriptions are deemed payable in advance. If any do not happen to be paid thus, we do not in all cases immediately erase the names from the mail book, because the failure, in the large proportion of cases, is merely from oversight on the part of the subscriber. We cannot afford to send out collectors, and therefore hereby constitute each subscriber who is in arrears an agent for the collection of the amount due from himself, and confer upon him plenary powers to send on the *needful* by the earliest ensuing mail after the reception of this notice. As commission on the agency we will insure him prompt transmission of the JOURNAL, and our best efforts to make it readable when received.

Stricture of the Œsophagus.—The Journal is promised the details of a case of stricture of the lower portion of the Œsophagus (including the *post mortem* appearances) which had been mistaken by very competent medical observers for cancer in the stomach. The case is one of much interest.

Vaccination.—The collection of large numbers of men together in camps and barracks suggests the precaution that each should present satisfactory evidences of recent successful vaccination, or immediately be subjected to this important little operation. Small pox in an unprotected camp is a thousand fold more to be dreaded than the bullets of an enemy. Will our army surgeons see to this?

Camp Diseases.—Germane to the matter just alluded to, we trust that our army surgeons will recollect that in time of war vastly a greater number perish from disease than from "villainous saltpetre" or the sword. Rub up your ideas of dysentery, "malarious" fevers, typhoid, pneumonia, &c., patriotic Brethren; adopt the almost infinitely improved methods of modern practice, and let us hear no more of the awful mortality which has formerly attended these diseases in camp.

Cimicifuga in Epilepsy and Chorea.—A recent discussion in the Philadelphia Co. Med. Society incidently brought up the use of Cimicifuga in Chorea. Our own experience in this matter has happened to be, perhaps, unusually large. We suggest that the Cimicifuga is useful in both Epilepsy and Chorea occurring at or about puberty, from the ages of 11 or 12 to 18 to 20. It is comparatively worthless either before or after these periods. During this time it controls these diseases with an efficiency unequalled by any other remedy with which we are acquainted. The larger proportion of cases occurring at this age, whether in the male or female, are evidently connected with derangement of the sexual system, an

his particular derangement is controllable remarkably by the Black Cohosh. It ought to be added that the Decoction is worthless for this object, the Fl. Extract unreliable, the Powder too bulky and often nauseous. The best form is the saturated tincture of the fresh root. Of this the medium dose is a fluid drachm three or four times a day, continued until a sensation of tightness, or of a band drawn closely over the eyebrows, is produced, when the dose or frequency may be lessened. Of course when this or any other empirical remedy is employed, appropriate regimen and such other medical treatment as may be indicated, should be made use of. *On the whole*, it is a remedy well worth trying in the kind of cases specified—and in these only with any degree of confidence.

Medical Appointment.—Dr. W. V. Keating ["One of the family"—*Devil.*] has been appointed to the position formerly occupied by Prof. Meigs in the Jefferson Medical College. Pending the appointment there has been given a capital opportunity for the friends of a large number of second and third-rate gentlemen to advertise themselves throughout the country as among "the candidates for the succession." *Facilis decensus, &c.* Be comforted, Gentlemen, remembering that even by Dame Nature you *have* been elected—*to fill a vacancy.*

O si sic omnia!—The authorities of Aix-la-Chapelle have prohibited all advertisements, either in newspapers or by placards, or otherwise circulated, of therapeutical substances as remedies for diseases of man or beast, under a heavy penalty.

Summary of Medical Science.—*Edited by Walter S. Wells, M. D.* Part 1, Chas T. Evans 532 Broadway, N. Y. City. This initial No. of Dr. Wells' Summary fully sustains the high anticipations we were led to express after looking over the same Editor's Epitome of Braithwaite. The typographi-

cal execution is of the same character, and the general arrangement and selections, very judicious. It is to be issued semi-annually; single Parts $1.25 or $2.00 per annum in advance.

American Medical Biography.—*Edited by Samuel D. Gross, M. D., Prof. Surgery in the Jefferson Med. College of Philadelphia. Lindsay & Blakiston*, 1861.

This work is intended to meet a want felt by every physician who takes interest in the history and progress of the profession.

Since Dr. Thatcher's work, published some thirty years since, and Dr. Williams compilation of sketches issued in 1845, we have been furnished nothing in book form in the shape of medical biography. The larger proportion of the memoirs in the present work have been furnished by various writers, only a few being from the pen of the editor. Most of these are very readable, but we trust in subsequent editions the Editor will depend more upon his own polished pen and singular felicity of style.

We miss many names worthy of niches in this memorial, but understand that the editor intends, should the present volume meet with professional encouragement, soon to send out another which will suitably commemorate those other and noble names, which we look back upon with pride and veneration. The work is to be had at the bookstores for $3.50.

Per Sulphate of Iron in Post Partum Hæmorrhage.—Dr. Geo. Mendenhall, of Cincinnati, reports another case of *post partum* hæmorrhage which, not being controllable by ordinary treatment was promptly relieved by intra-uterine injection of two ounces of the saturated solution of per-sulphate of iron. It should be so applied as to entirely wash the inner surface of the uterus. In those rare cases where the usual methods fail, there can be little doubt that this will furnish a most efficient resource.

Castration for Epilepsy.—Dr. Jas. J. Rooker, of Castleton, Indiana, reports a case in the *Cleve. Med. Gaz.*, of castration for the cure of Epilepsy evidently dependent upon the habit of excessive masturbation. The patient was thirty-five years of age, and the disease remarkably severe. The operation has proved entirely successful.

Action of Bismuth.—Prof. J. B. McCaw, in the *Maryland Journal*, gives Bismuth in much larger doses than those usually ordered—sometimes even as much as an ounce in the twenty-four hours. Thus in serous diarrhoeas and "irritable" bowels. So also to neutrallize sulphuretted hydrogen evolved in the intestines. He uses it also as a direct application in erysipelas, burns, excoriations, &c.; also as a general disenfectant in fœtid ulcer, sinuses and malignant sores.

Transactions Am. Med. Association.—The *Maryland Journal* is evidently much dissatisfied with the results achieved by the late American Med. Association. It considers the seven papers published with the following running commentary. Thus of the Reports on Topography of Drs. Smith and Dickson: "Dr. Dickson's is by far the more practical. Dr. Smith has adopted a more extensive plan, but his details are meagre and there is want of unity between the different portions of his essay." Dr. Pallen's essay, in which he tells us he considers only 'strictly ocular' subjects, seems to us a rather carelessly written compilation."

"As to Dr. McDowell's paper, we are surprised at his having written it, and still more, that it should have been published by the Association. It is simply a loose, sketchy, rambling squib, the burden of which is that the Americans are great surgeons, and need no instructions from Europeans or their books."

"We are glad to be able to speak more favorably of Dr. Sayre's contribution."

"Of Dr. Davis' paper we have nothing to say, because it seems to us to contain absolutely nothing."

"Dr. Ayres has rendered a most important service to a truly beneficent movement."

Dr. McDermont's Report "seems to treat more of a matter of policy than of pure science."

"Dr. Miller's address, although sound in its tendency, touches upon this matter (medical education) in general terms, and does not seem to us to strike at the root of existing evils."

"Nor do we think that the Committee's Report, with respect be it said, covers the whole ground of the difficulty."

Now as these several papers constitute the entire product of the Association from May, 1859, till June, 1860, it *seems* a good deal "*like*" our worthy confrere may have an obscure idea, unexpressed, but very expressible, that the American Medical Association has already "survived the period of its usefulness," and its "mission" being thus far accomplished, our glorious profession may struggle throughout another year unilluminated by its annual volume.

Fistula in Ano.—The courtiers of Louis XIV. affected a disease of being cut for fistula, in order to commend themselves to the monarch, who was himself unfortunately the subject of the same disease! According to Dionis, many of these personages were greatly annoyed when told that it was unnecessary in their case. "This disease," says Mad. de Sevigne, "was called the '*Maladie du Roi*,' and became the fashion. It was considered *bon ton* to be affected with it; every one wished to be operated on, and many were so, without cause. Dangeau was too prudent a courtier not to conform to the prevailing fashion. He also had the *maladie du Roi*, and submitted to an operation." [In these days the fashion is to have either Diphtheria or, among the sex, ulceration of the womb.]

According to the Journal of the Marquis of Dangeau, it was on Monday, November 18, 1687, at seven o'clock in the morning that Louis XIV. was operated upon. Dionis informs us that he recompensed like a king all his medical attendants. He gave to Felix, his first surgeon, who performed the opera-

tion, 50,000 crowns; to Daquin, 100,000 livres; to Fagon, 80,000 livres; to Bessieres, 40,000 livres; four apothecaries had each 12,000 livres, and to Rage, a pupil of Felix, he gave 400 pistoles. Never was the cure of so trifling a disease, and so easy an operation, so magnificently rewarded.—*Ribes.*

SUBCUTANEOUS OSTEOTOMY.

Report of a Case of Anchylosis of the Knee Joint Successfully Treated by Subcutaneous Division of the Condyles of the Femur, with Observations on the Application of this Method of Treatment.

BY DANIEL BRAINARD, M. D.,
Prof. of Surgery in Rush Med. College.

In Dec. 1853, the writer published at Paris an Essay devoted in part to the development of "a new method of treating certain deformities of the bones." The plan proposed was that of subcutaneous division, and the object of the brief notice published at that time was principally to *prendre date* and thus be able to establish a claim of priority. Experiments on the bones of living animals and certain theoretical views formed the basis of the plan as then suggested. It has since been resorted to in a number of cases differing widely from each other, and the experience thus acquired has naturally suggested some improvements in the form of instruments and the best method of using them. It is to these points that attention is now invited.

Case.—Wm. H. Brooks, aged 23 years, consulted me in May, 1860, on account of an anchylosis of the left knee. He had in October, 1859, received a cut on the leg below the knee, which at first gave little trouble, healing readily; but at the end of a month pain, swelling and extensive suppuration took place in and around the joint. The abscesses were opened and at the end of three months they were nearly healed.

At the time of the examination the leg was flexed to an angle of 60 degrees with the axis of the thigh, and immoveably fixed; the tibia partially dislocated outward and the patella entirely displaced upon the outside of the external condyle of the femur, where it was fixed by bony union. The lower end of the femur was considerably enlarged, numerous scars adhered to its anterior surface, and over the internal condyle was an ulcer as large as a silver dollar, which showed no signs of healing.

The patient's health was poor, and as he had previously been afflicted with eruptions on the skin, deemed scrofulous, he was advised to return home and take the iodide of potassium, which he did to the extent of five grains thrice daily for a month, during which time the ulcer on his knee healed, and his health improved so much that he was able during the summer to do every kind of hard work on a farm which the flexed position of the leg permitted.

Sept. 20, 1860, he returned in good health. The condition of the knee was the same, excepting that it was free from ulceration and tenderness and smaller than before.

The operation was performed Sept. 21, with the assistance of Dr. Edwin Powell and in presence of several medical students, as follows: Chloroform was first given. With the instrument devised for the purpose, (and hereinafter figured,) a puncture was made through the skin and tissues on the outside of the condyle, immediately above the patella. The puncture through the skin was longitudinal, but when it reached the bone the instrument was turned so as to divide it transversely and by slight movements of rotation was carried through the center of the condyles horizontally until the point could be felt beneath the skin on the inner side of the internal condyle. It was then partially withdrawn, and by passing the handle up and down and by passing it forward and drawing it backward, nearly all the cancellated structure of the bone was divided. I then directed the point to the anterior surface and cut the superficial compact layer as much as could

well be done. Finding it difficult to effect this sufficiently, I withdrew the instrument from the bone, but not from the skin, and after carrying it toward the anterior surface of the femur perforated it again and repeated the attempt to divide the superficial layer in front. After having effected this as far as possible the instrument was withdrawn, and the patient lying on the bed on his back, (still insensible); I seized the ankle with my right hand, placed the left under the knee and made efforts, gradually increasing in force, to break the bone. During an effort in the direction of the flexion, and where only moderate force was being employed, a distinct snap was heard and giving way perceived of the leg. The bone had partially fractured in front, and at this point it was left, as I did not, for obvious reasons, wish to complete the fracture at once. The puncture in the skin was left open as long as any oozing of blood continued and then dressed with adhesive plaister. For some days there was a little tenderness on moving the member, but at the end of six days, Sept. 27, this was nearly gone and the puncture in the skin quite healed; there was slight swelling, but no inflammation. The member bent readily at the seat of fracture, but did not extend beyond the point where it was fixed before the operation. I now placed upon it an extending apparatus and turned the screw until a moderate amount of force was employed to straighten, when a distinct snap was heard. As the patient was not under the influence of chloroform and suffered some pain, I desisted and removed the apparatus.

Sept. 28—There was no pain except what resulted from movement and want of support. The extending apparatus was re-applied, and, after giving chloroform, the screw turned so as to straighten the leg about 20 degrees, which was done without much force.

Sept. 30—No pain; extended 15 degrees. After this time the extension was gradually increased until the member was as straight as is desirable for facility of using, which was effected Oct. 4. The bones were not displaced at the fracture, nor was

pressure required to effect the object, but the seat of the old ulcerations on the knee vesicated and ulcerated at the slightest touch, so that the apparatus could be but imperfectly applied to keep up extension and preserve immobility. By great care and frequently changing the dressings this was effected, and Oct. 27, union seemed perfectly firm and the patient went about on crutches, the apparatus having been removed.

Nov. 12--He was brought before the class of Rush Medical College at the clinic. There was but a trace of the ulceration, no tenderness about the knee or the seat of fracture, which was entirely consolidated. Patient puts the member to the ground and supports himself upon it in walking.

During the whole course of treatment there has been no more inconvenience than results from a simple fracture without displacement. The result, so far as danger is concerned, is therefore as satisfactory as could be desired. In appearance the knee is perhaps less regular than after some cases of resection. I have already stated the tibia was partially dislocated outward on the femur and the patella entirely displaced before the operation. By the reduced fracture of the bone displacement of the fragments at the seat of fracture was avoided. Hence after straightening the knee projected somewhat in front, but the firmness of the limb and the readiness with which it was moved Nov. 14, seven weeks after the operation, when the patient returned home, leads me to expect that no great inconvenience will result from this irregularity. *

The case here narrated is the seventh, as far as I am informed, in which this method has been applied. As it is little known, a brief notice of each case may not be out of place here. They are given in part from the author's Report on Surgery made to the Illinois State Medical Society, 1860.

The first case in which it was resorted to, was that of a boy three years old, who had received a fracture of both bones of the leg when an infant, on whom I operated May 15, 1858.

* This patient in April, 1861, walked well and was able to do considerable work.

The deformity was so great as to render the member quite useless. The callus at the point of fracture of the tibia was perforated in two different directions, with an instrument the point of which was one-fourth of an inch in breadth. Efforts were then made to fracture the bone, but without success, and the patient was left ten days at rest, with cold water applied at times, until the inflammation, produced by the operation and efforts at fracture, had subsided. Gradual pressure was then made by means of a straight splint, with a foot-piece applied behind the leg, and a roller passed around the most projecting point of the angularity. In four weeks the member was quite straight, except a projection not considerable, resulting from the overlapping of the fragments. In eight weeks the boy was able to walk with a useful member. This case was reported in the *Chicago Medical Journal* for January, 1859.

The second case occurred in the practice of Prof. Paul. F. Eve, and was noticed in the *Nashville Medical Journal* for March, 1859.

The fracture was of six years date, of the tibia and fibula, in a boy ten years old. "Placed under chloroform and ether, with a brad-awl the tibia and fibula were several times perforated through one opening made in the skin, and the bones re-fractured by the hands. The larger bone yielded readily, but the smaller one was not sufficiently divided." "Owing to the severity of the operation and the free use of anæsthetic agents, we desisted for the time. Ten days afterwards, the fibula was again attacked by the awl, and the limb brought perfectly straight. It was now placed in a fracture box, extension and counter extension maintained as usual, and a weight—a pound of shot in a bag—retained over the point where the angle existed." I afterwards learned from Prof. Eve that his patient recovered with a straight leg.

The third case was by Prof. Pancoast, and noticed in the *Med. and Surgical Reporter* for March, 1859. It was one of anchylosis of the knee, in which extension had been tried.

The operation is thus described: "It is proposed to-day to bore holes in the bone from one external orifice in the soft parts above the knee, where the bone is least covered, and after having thus weakened the part sufficiently, to break the bone either across the knee or by apparatus." "From a single external orifice a half-a-dozen holes were bored through the bone, and after several efforts to break the bone, it was fractured, with a loud crack, distinctly audible over the whole room." The instrument employed by Prof. Pancoast was a gimlet, and he remarked that the operation was dangerous, but less so than that of cutting out a V shaped piece, which is "extremely hazardous." The case was exhibited at the following Clinic, no unfavorable symptoms having followed the operation.

Since writing the foregoing the following letter has been received from Prof. Pancoast, in reply to enquiries I had made. The result shows that the gimblet is not free from objections.

PHILADELPHIA, May 8, 1860.

My dear Sir:—

The result in the case of the lad, whose thigh bone I fractured after perforation, on account of anchylosis of the knee, with the leg in a flexed position, has been good. He is now running about the town, and I exhibited him to our class this winter. The foot comes well down to the ground, and the limb is almost as straight as is desirable in these cases where the knee joint is stiff.

The bone at the point of fracture forms an angle, with the apex projecting into the ham. But this projecting apex in nowise interferes with the vessels or nerves of this region. I should have had even a better result in the case, if the constitution of the lad had not been so weak and scrofulous.

After he had been taken home from the college hospital by his parents, a large abscess formed about the fracture, which was evacuated by a puncture on the side of the thigh. This was owing, I think, to the inattention and poverty of his parents; for after these causes had been provided against, the case which after the formation of the abscess had rendered me anxious, went on well. I was obliged, however, to content myself with a less complete effacement of the angularity at the knee, than would otherwise have been necessary.

The fourth case was anchylosis of the patella to the femur

with false anchylosis of the knee joint, of one year's standing; the result of inflammation. The patient was a healthy girl of 16 years. As the patella could not be moved by strong efforts at flexion of the leg, while she was chloroformed, the skin of the knee was drawn forward over the patella and the broad perforator introduced from the outside and carried between the bones, which, by gentle movements of reaction, and by using it as a lever, loosened the patella with an audible snap. Adhesive plaster was applied over the puncture, and the limb left at rest for ten days, when, by moderate efforts at flexion, the patient being insensible, the patella followed the movements of the leg. Gradual extension straightened the knee in about four weeks, with little pain. This case is noticed in the Chicago Med. Journal for Feb., 1860.

The fifth occurred in the practice of Drs. English and Edgar, of Jacksonville, Ill. The case, interesting in other respects, is reported by Dr. David Prince in the May number of the Chicago Med. Journal, 1860. It was one of deformity, after oblique fracture of the upper portion of the middle third of the femur. Overlapping occured from loosening of a strip of adhesive plaster, and at the end of five weeks Dr. Prince refractured it, replaced it in dressings, which were retained seven weeks longer, and then removed the splints, union appearing to be solid and the limb straight. From want of support and proper care on the part of the patient and his parents, the callus bent so that the fragments deviated 25 or 30 degrees from a straight line, three weeks after taking off the splints. Twelve or thirteen weeks from the time of refracture, and about six weeks from the supposed time of bending, attempts to straighten it by pressure alone, were made for two days without success.

The following is Dr. Prince's description of the subsequent successful treatment:

"Several weeks now elapsed without treatment, after which three perforations were made through the region of fracture, by Brainard's drill; Dr. English, assisted by Dr. Edgar, hav-

ing the treatment of the case. After waiting a week, extension was applied by means of a long splint, to the distal end of which the mechanical power of Jarvis' Adjuster had been attached. Lateral pressure was made by a sort of tourniquet with a hook passing under a splint upon the posterior part of the limb, and a screw pressing upon the convexity of the bone. It will be readily seen, that such an instrument would easily break down any bone, if the screw were forcibly turned.

The splint having been properly padded, the extension secured by adhesive straps, the counter-extension by a well cushioned perineal band fastening to the proximal end of the long splint, and the wooden ball of the screw of the tourniquet properly secured by gutta percha and padding, from pressing directly upon the prominent bony angle, extension was powerfully applied at the same time with lateral pressure, until a distinct yielding of the crooked bone was perceived. The lateral pressure was then slightly relaxed to avoid injurious pressure of the soft parts against the bone, but the extension was kept up unremittingly. In about three days the curvature disappeared, but as a precaution against accidental bending, the splint, with moderate extension, was kept on two weeks, and the thigh was afterwards protected by a starch bandage."

The sixth case occurred in the practice of Dr. Stephen Smith of the Bellevue Hospital. The patient was a boy ten years old, who had received what was decided to be "partial fracture of the tibia, with laceration of a blood vessel." The toes sloughed and when cicatrization was completed "the incurvation of the leg was considerable and efforts were made to overcome it by compression supplied at proper points, while the limb was fixed in a suitable splint." These attempts proved unavailing. Moderate efforts were then made to re-fracture the limb, but without success. Subcutaneous perforation was then resorted to, "the soft parts being opened at two points and the shaft of the tibia perforated in several directions. The external portion of the shaft, the seat of fracture and of the recently formed callus readily broke down, but the internal portion was penetrated with difficulty." The limb was kept quiet with cold water dressings for about a week, one of the openings for the perforator having suppurated when an

attempt was made to straighten it with the dressings applied. To accomplish this object a strong, unyielding splint was placed upon the internal margin of the limb, resting upon pads placed upon the upper and lower extremities of the tibia; at the seat of the fracture a tourniquet was applied around the splint and limb, having its pad and screw resting directly over the fracture upon the external surface of the limb." "At first the pressure was moderate and at intervals, the object being to bend the bone gradually if softening had occurred. Considerable impression was thus made upon the limb, the deformity having markedly diminished. But sufficient was not gained." "It was determined to place the patient under chloroform and resort to immediate straightening of the limb. At applying all the force which could be brought to bear the bone yielded slightly but perceptibly, and the deformity was still further diminished, but not entirely overcome." A subsequent effort was made to fracture the bone, but it did not prove successful. "The patient left the hospital with his leg somewhat incurved, but as useful, apparently as the other." *

If this was a case of partial fracture this fact might alone explain the difficulty of straightening. It will be seen that Dr. Smith did not think proper to follow the example of Prof. Eve and weaken the fibula. Notwithstanding that an entire absence of duties impaires the value of this case, it is still useful as showing the safety of the operation and its partial success under circumstances not the most favorable.

The only other case in which this method has been attempted, within my knowledge, came under the care of Dr. H. O. Hitchcock, of Kalamazoo, Mich. It was one of badly united fracture of the femur at the junction of the lower with the middle third. The attempt was made about six months after the accident, but it was found difficult to follow the line of callus, and as the point of one of the instruments broke in

* New York Medical Times, Nov. 3, 1860; p. 310.

the bone, the Dr. feared necrosis and cut down on the callus the next day and sawed it through.

Instruments of various forms and sizes may be required in different cases. The cut represents the one which I used over the femur and on the case of anchylosed patella of half-size. It should be made thick and so firm that in case of need it may be driven with a hammer so as to split the bone. The case of Dr. Hitchcock shows the propriety of having the instruments perfectly tempered, of the best steel, and well tried before applying them on the living subject.

Remarks.—The term "subcutaneous osteotomy" seems to have been first used by Prof. Langenbeck, of Berlin. From an account in Braithwaite's Retrospect, No. 31, p. 126, by Dr. P. Frank, it appears that "this brilliant acquisition to modern surgery" was first made known by Prof. Langenbeck in 1854, and the operation of sawing through the bone without extensively wounding the soft parts, first performed by him in the summer of that year.

The manner of performing it, as detailed in the paper referred to, is as follows: The integument and soft parts, including the periosteum, were divided by a strong scalpel. The bone was then bored through with a drill two lines in thickness, and a narrow saw introduced into the hole thus made divided the greater part of the bone, the remainder being fractured. The cases which had been operated on by Prof L. at the time of the publication were three, all of the tibia and the result is stated to have been in all satisfactory.

It is not my intention at present to discuss the value of this operation, nor to enquire in how far it may differ from other plans of sawing bones in deep situations, several of which have at different times been proposed. It seems likely that it may be found serviceable in a certain class of cases, but what is worthy of especial notice is that this operation is not in any proper sense subcutaneous. The distinction between subcutaneous and open wounds is now well known to consist in this, that the fomer are healed without suppuration. Now Prof. Langenbeck says in his publication, "Closure of the wound by first intention happened in none of the cases operated upon, suppuration supervending from the sawn surfaces of the bone. "In the second case the discharge was not inconsiderable and a fortnight elapsed before it subsided." And again, in conclusion, "union by immediate formation of callus, as in simple fracture, cannot be expected after subcutaneous osteotomy, because the small particles of bones detached by the drill and saw act as foreign bodies, which must be eliminated by suppuration."

Experience in a number of cases has proved that by my method subcutaneous osteotomy may be performed without any suppuration; this accident having occurred only in the case of Prof. Pancoast, in which a gimlet was employed. Without going beyond facts already demonstrated, it is now certain that in cases of anchylosis where division of the bone requires to be made in the spongy structure and after fractures where the callus is not too firm, subcutaneous osteotomy by perforation may be performed with much greater advantage than subcutaneous tenotomy, comparatively speaking, since the difference in danger between open wounds of the bones (compound fractures) and those which are subcutaneous (simple fractures) is much greater than that between open and subcutaneous wounds of the soft parts.

Hand-Book for the Military Surgeon, being a compendium of the duties of the medical officer in the field, the sanitary management of the camp, the preparation of food, etc., with forms for the requisition for supplies, returns, etc.; the diagnosis and treatment of camp dysentery and all the important points in War Surgery, including gun shot wounds, amputation, wounds of the chest, abdomen, arteries, and the use of chloroform. By Chas. S. Tripler, M. D., Surgeon U. S. Army; George C. Blackman, F. R. M. S., etc. Cincinnati: Robert Clark & Co. 1861, p. 182.

The character and contents of this little volume are sufficiently indicated by the title page. The experience of Surgeon Tripler and the acquirements of Prof. Blackman, are a sufficient guarantee of the correctness of the information which it contains. It is no doubt intended to facilitate the performance of duties by those just entering on the duties of Military Surgeons, and seems well adapted to this end. At this moment we have only time to announce its appearance, but shall take occasion to return to it at some future time. The price is $1.00.

Death of David Meredith Reese, M. D. LL. D.—This widely known and distinguished medical practitioner, teacher, author and editor, died in New York city the 20th inst., if the daily press brings correct information. We were somewhat prepared for this event, by the descriptions of his case that have been given in the medical press during the past season. A correct memorial of his life, it is to be hoped, will speedily be published. With very considerable attainment, he combined a versatility of talent and readiness of adaptation which rendered him peculiarly formidable in that field for which his faculties best fitted him, and wherein he won his highest laurels—controversy. Dr. Reese scarcely, if ever, brought the lance to rest which once he had couched, or quit the field whilst an enemy remained upon it. All his life long he honored and sustained the profession in that position which

he believed it ought to occupy. If in sustaining his occasionally erratic views, he came into collision with any one, all must admit he was an open and honorable foe; he scorned bush fighting or evasion of any sort. With quick coming flashes of the fiery and impetuous, he combined withal a really genial and easily conciliated nature. This not unfrequently led him into strange inconsistencies, but those who knew him best will coincide with the remark that the source of many of these was such as really to do him honor.

The writer of the present notice, a score of years since, knew and respected him, has ever been on personally friendly relations with him, and yet has been frequently compelled to enter the lists against him in earnest contest. The narrow cliques which so largely influence professional life in New York city, could not discourage or rebuff him; he carved himself a place and fame among them, and established his widely disseminated journal, the *American Medical Gazette*, by his individual efforts when a mortal epidemy seemed to sweep away one after another of those sustained by large *quasi* associations.

That Dr. Reese was free from several objectionable characteristics, his best friends will not claim; that he has accomplished much for the welfare and advancement of the profession, all must admit. All his life-long he was a *live* man, and a working man. We know many a knavish, plotting, scheming, intriguing charlatan, who will breathe freer, and stride along with a loftier air, now that his keen and trenchant blade is forever sheathed by death; but among the good men and true of our ranks, we do know that there has been and will be a sensation of unfeigned sorrow as the painful intelligence is received.

Truly, "after life's fitful fever, he sleeps well," for he rests beneath memories which bend lovingly over him, as the cypresses and willows over his tomb in beautiful Greenwood.

Appointment.—Ralph N. Isham, M. D., has been appointed to the position of Surgeon to the Chicago Marine Hospital. We learn from a contemporary that this appointment gives satisfaction to not only the gentleman himself who has drawn the prize, but to his friends and admirers. From the same source we learn that "Dr. Isham is a gentleman whose professional attainments, pleasing address, and brilliant style of operating, have won for him no mean reputation, both in the amphitheater and in private practice."

Gen. McLellan.—Perhaps some of our readers may not be aware that this eminent gentleman, to whom has been assigned the command of the North-western division of the national forces, is a son of the late distinguished Prof. George McLellan of Philadelphia, founder of the Jefferson University Medical College. Under his supervision there can be no doubt that the most enlightened and sagacious measures will be adopted for securing the best sanitary condition of the army.

New Practical Treatise on Military Surgery.—Bailliere & Brothers, 440 Broadway, New York City, announce as forthcoming, in a few days, a new work on this subject, by Prof. Frank H. Hamilton, M. D., the well known author and lecturer. The book cannot fail of being valuable and interesting, as it is compendious and timely. It will be in one vol. octavo, and will be mailed, postage free, on receipt of $2.00, sent to their address.

Financial.—Will our subscribers please to remember, in forwarding their subscriptions, that the large majority of bills now in circulation are ruinously below par? We will receive at par, on subscriptions, bills on all specie paying banks, and on all banks based on the stocks of Northern States or the United States. For other bills we can only credit their market value. All business men will appreciate this proposition as being as liberal as could be desired during the present currency storm.

SELECTED.

ALTERATIONS OF THE TONGUE IN DISEASES.

BY DR. CARL NEIDHARDT.

Omitting other abnormal conditions of the tongue, Dr. Neidhardt arranges his remarks under three heads of coating, smoothness, and dryness.

Abnormal Coatings depend essentially upon a prolongation, loosening, and discoloration of the epithelial processes (*ciliæ*, *appendicæ epitheliæ*) of the papillæ. Whether a catarrhal condition is its cause, seems questionable; at least the places on the tongue free from coating show no hyperæmia. Certain it is that disordered nutrition occurs extraordinarily easy in the epithelium of the tongue. As to the *extent* of the coating, it is either total or partial; in the latter case it is either symmetrical, *i. e.*, covers corresponding portions of the tongue, or is unequal, sometimes entirely on one side. This, as well as the coating of the tongue in health, is owing to the motions of the tongue, and the friction it sustains. Thus the coating is found on only one-half of the tongue, as also in cases of one-side neuralgia trigemini. The symmetry of the coating often depends entirely on the form of the tongue, as f. i. in the conical; while unsymmetrical, partial coating, may be owing to accidental circumstances, as want of a tooth, projecting teeth, etc.

As variable as the extent, is also the amount or *thickness* of the coating. It also depends mechanically on the use and friction of the tongue, and is not proportionate to its roughness.

The *color* is at first grayish-white. It is changed from substances introduced from without, or from such as come from the body itself. Among the first, articles of food and medicines, as well as atmospherical dust, must be taken into consideration, besides special coloring matters. The discolorations from the body may arise from blood or biliary coloring matter. Blood extravasates on the mucous membrane of the tongue almost only in very severe diseases, when, in consequence of extreme dryness, fissures and rupture of superficial capillaries occur. The color may vary from reddish to black, constituting the rusty coating. The yellow coloration does not seem to be produced by biliary coloring matter, as is generally supposed, for it is found absent in the most intense icterus; it is owing, more likely, to the ingesta. The brownish

color is connected with dryness of the tongue. The so-called *raspberry* tongue depends on the contrast in appearance of the filiform and fungiform papillæ. The latter having but little and translucent epithelium, are plainly to be seen as red points, when the former by the alteration of their epithelium produce the coating; the fungiform papillæ being especially numerous on the anterior half of the tongue, it is here, too, where the raspberry appearance is most observed. This appearance is by no means characteristic of scarlatina, as many believe; it is quite common in children, with slight, and even with normal coating, and has, therefore, neither in children nor in adults the slightest diagnostic value.

The *composition* of the abnormal coating resembles that of the normal coating of the tongue; *i. e.*, it consists of masses of epithelium, epithelial processes with granular cells that are thrown off, fat particles, fungi, and accidental mixtures.

The *cleaning of the tongue* usually proceeds gradually, the coating getting thinner and thinner; it is but seldom that the coating is thrown off in its whole thickness at once. Cleaning over the whole extent of the tongue never occurs at one time. The first clear portion is mostly the point of the tongue, where the cleaning proceeds to the edges and regularly backwards; sometimes the middle, very seldom the posterior portion, are first cleaned. The cause of this variation is, most likely, the varying forms of the frictional motion of the tongue; solution or absorption of the epithelial cells is an unsatisfactory explanation, and has never been proved; and a clearing up of the darkened or discolored cells is certainly very improbable.

The adherence of the coating to the tongue depends generally on its duration; reproduction after artificial removal is undesirable, as showing the continuance of the diseased condition.

The *taste* is either unchanged, especially with slight coating, or cannot be indicated by the words so often quoted.

The *diagnostic signification* of the coating is limited entirely to the fact indicating the existence of some diseased condition in general. [?] In a *prognostic* point of view, the disappearance of the coating is of value, as it is one of the first signs of the decrease of the disease. The significance of the dark coatings of a dry tongue will be considered under the latter heading.

b. *The Smooth or Shining Tongue.*—In consequence of the direction of the papillæ, the tongue, normally, is smooth on

rubbing backwards, but rough to the touch, passing over it from the back, forwards. In disease, an extraordinary smoothness is not of unfrequent occurrence, accompanied, too, by reddening of the mucous membrane, and diminution of papillæ. The papillæ become smaller—and the smaller they become, the greater the reddening; for the epithelial covering becoming thinner at the same time, the blood is more easily seen through it. The abnormal smoothness of the tongue depends on the separation of the epithelial covering. Partial separation causes only partial smoothness. The smooth, shining tongue, being moist, reflects. Abnormal smoothness is found in acute as well as chronic diseases. In the former, it is without diagnostic significance, and, following generally the separation of the coating, has only the prognostic value of the cleaning of the tongue, as the epithelium is quickly reproduced in convalescence. In chronic diseases the smoothness indicates deficient reproduction of epithelium, from greatly disordered nutrition, without, however, indicating the nature of this disorder; it is unfavorable, prognostically, the disease being mostly incurable.

c. *The Dry Tongue.*—Dryness of the tongue is found in various degrees in health as well as in disease. It may be so excessive as to interfere with motion and with taste. The tongue is generally dry, partially, or over the whole extent, only on the back. If the smooth tongue becomes dry, it ceases to reflect. The color depends on the coating, which, as already mentioned, in extreme cases of dryness, becomes dark from fissures and rupture of the blood-vessels. For prognostic purposes, it must be noticed whether the dryness is only temporary or continues, and for how long it can be made to disappear by moistening. Temporary dryness is caused by breathing through the mouth, and is of no consequence. [Though the habit of some persons of breathing continually through the mouth is an unnatural and injurious one—the cause of snoring while sleeping, etc.—L. E.] When dryness lasts for days, and when it cannot be relieved by moistening the mouth, it is serious. Dryness usually commences at the middle, because that portion is least touched by the moisture of the mouth. Diminution of this moisture is the nearest cause of the dryness; the secretions of the mouth may be actually diminished, evaporation increased, or both these circumstances co-exist. Dryness is, therefore, almost always met with in unconscious patients, who do not feel its inconvenience. Its diagnostic importance is limited, excluding accidental dry-

ing circumstances, to the proof of some disease. Appearing in the course of acute disease, and not yielding but for the moment, to moistening, the prognoisis is rendered unfavorable; the greater the degree, the more unfavorable, of course. The becoming moist again of the tongue, especially when it continues, is a favorable symptom.

Folds and Cracks of the Tongue.—Folds on the tongue are of no importance whatever. They occur only after about the eighth year, generally, increase in number and depth with age, and are connected with the frequent change in the form and position of the tongue. If the tongue is coated, the papillæ in the folds remain coated longest, on account of their being less exposed to friction. Discolorations, for the same reason, are seen here longest. From the folds, cracks may follow a contraction of the mucous membrane in extreme dryness. As these cracks heal, cicatrices form, which are distinguished from the folds by the absence of papillæ.—*Am. Med. Monthly.*

TRUE RINGWORM.

BY JONA. HUTCHISON,
Of the London and Metropolitan Hospitals.—Extract.

Treatment.—From time immemorial it has been customary to employ various local irritants for the cure of ringworm. Ink is the favorite application of mothers, and is a scientific and frequently successful remedy. At the Hospital for Skin diseases, Mr. Startin always blisters the patches with the vesicating fluid. A single blistering is usually sufficient for patches on the skin, but those on the scalp often require two or more. Many surgeons employ nitrate of silver in solid stick. M. Bazin insists strongly on epilation as a means of cure, and there can be no doubt but that it is an extremely important one. By removal of the affected and adjacent hairs we can reduce a ringworm patch on the scalp to the same condition as one of the general surface, thus rendering it much more accessible to the influence of parasiticides. Of the latter it probably does not matter much which we select. The creosote ointment is a very good one, so also is the application of strong acetic acid. The great point in treatment is to keep clearly in mind that the destruction of a vegetable parasite is the object aimed at. It is needless to point out how strongly the fact that ringworm is curable by local means supports the opinions held in this report as its purely local pathology.

Conclusions.—1. True ringworm, or tinea tonsurans, may be defined as a disease affecting either the scalp or the general surface, in which circular patches are formed, on which the hairs break off short, and a short, and a slight, branny desquamation is seen, both hairs and epidermic scales exhibiting under the microscope the sporules and thalli of a fungus.

2. Ringworm in the scalp is rarely seen, excepting in children; but on the general surface is not very unfrequent in young adults.

3. It is contagious, and spreads by contagion only.

4. It is not attended by any peculiar form of dyscrasia, but on the contrary, often attacks children in perfect health.

5. It is much more easily curable on the general surface than on the scalp, owing to the circumstances, than in the latter situation the fungus has obtained access to the follicles of the hair.

6. Being a purely local disease, ringworm does not require, *per se*, any constitutional treatment.

7. A purely local treatment, if efficiently pursued, is always and rapidly successful.

8. Epilation, and the use of one or other of the known parasiticides, are the measures of treatment required.

9. There is no real difference between ringworm on the general surface.

10. Ringworm, although not unfrequently causing minute vesicles, has no true analogy with herpes.—*Med. Times.*

A SENSIBLE JUDGE'S CHARGE TO THE JURY IN A SUIT FOR MALPRACTICE.

So much ignorance and prejudice in regard to the real moral and legal responsibilities of the surgeon have been frequently evinced in the charge of judges in suits for malpractice, that one in which the real position of a surgeon is appreciated deserves to be spread before the profession.

The charge, which we copy, is in strong contrast with the position taken by Judge Bredin, of Pittsburg, who, in a suit for malpractice, which occurred some years ago, said, that the defendant "was bound to bring to his aid the skill necessary for a surgeon to set a leg, so as to make straight, and of equal length with the other when healed, and if he did not, was accountable in damage, just as a stone-mason would be in

building a wall of poor materials, so that the wall would fall down."

It is now many years since an eminent surgeon of this city was persecuted in this manner, and obliged to pay damages to the amount of more than $3,000 on account simply of the failure of an operation for cataract on a charity patient.

The late Dr. Horner was, a short time previously to his death, sued for damages to the amount of *one hundred thousand dollars*, in a case where death happened to follow an important operation on the wife of a poor man. Dr. Henry H. Smith acted as an assistant at the operation, and although he had never before seen the patient, nor been consulted in reference to the operation, he was included in the prosecution, and Dr. Horner dying before the case was tried, Dr. Smith was compelled to stand his trial. Had not the bad character of the plaintiff been proved, and the malicious intent of the prosecution been made evident, the surgeon might, from the stupidity of a jury, have been made to suffer severely.

This action was brought by Daniel S. Hamilton against Drs. Squire, Wey, and Smith, for damages alleged to have been sustained by the plaintiff in consequence of a surgical operation performed upon his knee by the defendants. The operation consisted in the removal of a loose or floating cartilage from the knee-joint, by means of what is known among surgical writers as the *valvular mode of incision.* Inflammation of the joint ensued, its disorganization followed, and the ultimate result was a stiff knee; the limb being slightly flexed and bowed laterally, in consequence of destruction of the articular cartilages, and the expanded extremities of the bones entering into the composition of the joint, on its inner side. Damage was claimed to the amount of $5,000. After a protracted trial, the case was submitted to the jury, in the following charge by Judge Campbell. The jury failed to agree, standing one for plaintiff and eleven for the defendants.

Gentlemen of the Jury:—Every person who enters a learned profession, whether the law or surgery, undertakes to bring to it the exercise of a reasonable, fair, and competent degree of skill.

Invariable success does not attend professional men, any more than those engaged in other pursuits. Indeed, success must with them sometimes depend on other instrumentalities than mere skill. Courts and juries are fallible and may err, and the best advice and labor of counsel in the law may be in vain; and habits of life unknown, and hereditary diseases,

and neglect of directions, and carelessness of nurses, may defeat the labors of the most skillful surgeon. Both the lawyer and surgeon, when they undertake professional business, agree to be responsible for the want of ordinary care—such care as ordinarily prudent men bestow upon their business. This is the responsibility which the law imposes upon them. But it is said the professional man is also bound to use his best judgment, and that judgment should be an enlightened one. This is true; but in cases where there is great difference of opinion among the most skillful and experienced as to surgery, where the most eminent men in the profession differ as to the methods of performing operations, the surgeon who possesses the necessary qualifications will not be held responsible for errors of judgment. He will be chargeable with error only when such error arises from want of reasonable, ordinary skill and diligence, especially if the general character of the operation and treatment has been honest and intelligent.

1st. Was this a proper operation under the circumstances of the case?

2d. Was it proper without the bandage or compression? *

3d. Was the valvular method a proper one?

4th. Was the place where the cartilage was taken out a proper one?

5th. Was the after-treatment proper?

To all these questions some of the most eminent physicians in the State, and I may say among the most eminent in the United States, have given you an affirmative answer. Others, on the part of the plaintiff, who may be equally intelligent, but who have not had equal experience, answer in the negative. Now, in such a case, where there is such difference of opinion, and certainly with the experienced men in the defendant's favor, they should not be held reliable for an error of judgment, even if you should be of the opinion that they did err.

The operation being thus, for the purposes of this suit, warrantable, and the method, place and treatment proper, was the operation performed, and the after-treatment continned, with reasonable skill and care—such skill and care as would be required at the hands of prudent, competent surgeons?

Now, the contract of a surgeon is not to warrant a cure, except such contract be expressly made. He contracts to

* Dr. March, Dr. Markoe, and Dr. French, the three surgeons who have operated for the removal of the loose cartilages, all unite in saying that the operation is warranted without resort to the bandage.

use his best skill, care, and attention. In this particular operation, it appears by the evidence of that eminent surgeon, Dr. March, that he had been uniformly successful. But taking the results of operations by other surgeons, so far as reported, one-fourth are *not* successful. It would not do, therefore, to hold up the responsibility of every surgeon in the land with that of one of the most eminent.

As to the manner in which the operation was performed, you have had the evidence of the defendants, together with that of Mr. Birchfield. If the delay in the operation was caused by the plaintiff, and therefore the time was protracted, the plaintiff cannot recover for any injury caused by such acts of his own.

As to the care and attention after the operation, as I understand, no complaint was made; but, on the contrary, the care and attention were constant, and such as might be expected of a kind and careful surgeon.

I have already observed that, from the evidence, it appears one-fourth of such operations are not successful. The want of success is not necessarily the want of skill.

Three-fourths of the cases are successful; and if the plaintiff had been among the successful number, if his limb had been entirely restored, he might, like the lame man healed by the Apostle, have "ran and leaped with joy." That it was not successful, is undoubtedly a great misfortune to him. Whether it was the fault of the defendants, is for you to say by your verdict.

You must take this case and determine it according to the evidence under your oaths.

In the case of Dr. Smith, it is claimed that he had nothing to do with the operation; that he was merely a looker-on, invited by Dr. Squire, as a simple act of courtesy; and that in point of fact he was not present until the operation was nearly completed, and when the chloroform was sent for. If you believe the evidence of the defendants on this point, of course you should render a verdict in his favor.

Then, if you find that this operation was not performed by Dr. Squires and Dr. Wey with ordinary skill, care, and diligence, you should find a verdict for the plaintiff.

On the other hand, if you find that they did perform the operation with ordinary skill and care, and such as would be required of surgeons holding a responsible position in their profession, then your verdict should be in favor of the defendants.—*M. & S. Reporter.*

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AN ESSAY

ON THE NATURE AND TREATMENT OF ERYSIPELAS.

By JAMES S. WHITMIRE, M. D., of Metamora, Ills.

Erysipelas is a disease that prevails in every country and limate on the face of the earth; and neither age, sex, nor ondition is exempt from its influence in one or another of its arious forms. It, therefore, being a dissease so general, and ne, too, that baffles the skill of the most judicious and eru- lite in the profession, on account of its stubborn, erratic, and aried character, according to circumstances, it becomes us as uembers of a noble profession, and ministers of mercy to the fflicted of our common humanity, who are seeking after nowledge, to each do his part in the investigation of the ifferent theories and treatment of every disease that comes ithin the purview of our observations, to compare notes and nterchange opinions in regard to them that we may be the etter qualified to form a correct judgment in respect to their

treatment and cure. And *particularly* is this the case in relation to the disease under consideration. Because there is no disease, probably, that flesh is heir to, that is more prevalent, nor that has had a greater variety of treatment applied for its cure, and none requiring, under the different circumstances in which it prevails, application of remedial agents. It is not my province in this paper to enter minutely, into either the history, cause, nature, varieties or diagnosis of this disease:—these are discussed at length in all our standard works on theory and practice, and are sufficiently well understood; so that there is a general understanding in regard to them, but the agreement in respect to its treatment, seems to be not quite so amicably settled. I will, therefore, only advert to so much of the generally received opinions as to its nature, as to go to what would most naturally make up the general indications of treatment, and then what remedial agents, in my opinion, would be most likely to fulfill those indications. While I am free to admit that many of us spend too much of our time in fruitlessly seeking after specifics and infallible remedies for particular diseases, and that in consequence we are too prone to fall into a routine practice and treat names and not diseases as they occur; yet, there is a general plan of treatment in all diseases, without regard to particular circumstances, that must be adhered to in order to bring about certain ends whether they be accomplished by one or another means; and in no disease does this principle hold good more certainly than in Erysipelas. As proof of this statement, you only have to refer to our standard authors and witness the reliance that each places on his particular method of treatment, under the different circumstances, and yet all converging to the same end by different means, and hence, probably, arises the great variety of treatment in this disease; than which no better proof could be adduced of the general inefficiency of all the means heretofore used, is this same diversity of opinion. And, yet all the different means used, probably, under the different surroundings, influences or peculiarities, may have been the best

that could be selected under the circumstances, hence the necessity of close observation and a discriminating judgment in the professional man. It has fallen to my lot in a country practice, of fifteen years, to have seen this disease in its various forms and under as various circmstances as almost any other practitioner of my age, and though my patients have universally recovered, yet I have never been entirely satisfied till within the last few years that the usual remedies used are not the best we have at our command. Since that time, I have viewed erysipelas as not only a constitutional disease, but dependent, in some degree, upon epidemic influence, and an animal poison for its propagation. In all instances in localities where erysipelas is epidemic, the whole community becomes predisposed to the disease from these influences, and the infection on account of the predisposition becomes doubly sure of propagation. And in all instances where there is a strong predisposition, or in idiosyncratic cases where the epidemic influence prevails, the disease may be developed without any contact whatever. And even though it may be developed without contact, it is none the less a disease of infection by contact, but not, probably, to the same extent as many others of our acknowledged contagious diseases. On the other hand it is argued against its being contagious, that it is not self-limited, nor does it fortify the system against a second attack, which is the case with other diseases of this class, and therefore should be thrown out of the list of contagions. But this would give but little scope to our investigations, and little encouragement to the free expression of our opinions, and narrow down and limit our observations to that which is acknowledged; and thus effectually close the door to all improvement. Because the first contagious diseases that were known to the profession were self-limited, and fortified the system against a second attack, is no evidence, to my mind, that it may not yet be found that other diseases may be communicable by contact or proximity and yet not partake of the other two characteristics.

I have come to the conclusion, from observation, without going into particulars, that we have many infections, or diseases that may become so under favorable circumstances that are not now recognized; and indeed, not easily recognizable, from the fact that they do not present all the characteristics of our acknowledged contagious diseases. So far, however, as this matter of contagion is concerned, it matters but little, either here or there, in regard to the disease under consideration, and I have only given my own convictions, without going into the particulars or data, from which they were formed; but such was their force at the time that I have become a thorough convert to the doctrine, and simply state the fact that investigation may be elicited by the profession. Without any reference to this hypothesis, however, there are every day occurrences to all of us where this disease is developed, apparently without any cause whatever. Exposure to cold or extreme vicissitudes of temperature—irregularity of diet—unwholesome food, creating a vitiated condition of the system—violent emotions, etc., etc., are all supposed to be frequent exciting causes of it. Many cases, too, that cannot be distinguished either in appearance, course or termination from idiopathic erysipelas, evidently result from injury. And because it may be developed by so great a variety of existing causes, where there is no apparent contagion, is no evidence to my mind, that after it is once produced, from whatever cause, the disease may not, of itself, and in itself generate the property or principle of self-propagation. All nature around us, proclaim this principle as a great fundamental truth; and may it not hold good, also, in the kingdom of disease? There are four varieties of this disease as recognized by authors—the simple or cutaneous, where the inflammatory action is superficial and confined to the skin and its membranes. The Phlegmonous, where inflammation of the skin is also present, and involving, also, the subscutaneous tissues, and not unfrequently dipping down into the cellular tissue covering the muscles. The Œdematous, which is most likely to attack pa

tients of a cachectic habit, and in whom there is a tendency to dropsical infiltration of the cellular tissue—hence the lower limbs are the most liable to this form of the disease, and in this form neither the heat nor redness is so great as in the former varieties, but the pitting on pressure and a doughy feel of the parts are two of the distinguishing characteristics.—The Gangrenous, may be either the original form of the disease dependent on a depraved condition of the system, or the malignancy of the cause that produced it, or, it may result from the excessive violence of the inflammation in the former varieties of the disease. Assuming, then, that this is a general disease, and that it is generally dependent on an animal poison for its existence and propagation, we are then left to consider the following and only proposition in regard to its rational and therefore successful treatment--to wit:—Have we in the Materia Medica an agent, the therapeutic agency of which will at the same time destroy, or neutralize the animal poison, and give tone and vigor to the debilitated capillaries of the affected part? If we have, then, indeed would the malignancy or virulence of this sometimes terrible scourge be mitigated and consequently its danger materially lessened.—The tendency, as I understand it, in every form of this disease is debility of the capillaries and consequent swelling from atonic congestion of these vessels rendering them incapable of carrying on the healthy circulation of the blood through the diseased part, and hence the peculiar inflammation, heat, swelling and infiltration of serum into the cellular tissue of the diseased part and its immediate vicinity. And though erysipelas is known and designated in varieties or different forms, yet the disease is the same, to all intents and purposes, and under any and all circumstances; the difference being simply in degree, and the degree being modified by circumstances such as constitutional predisposition, idiosyncracy, or the virulence of the original cause. This disease, therefore, being the same under all circumstances we would most naturally conclude that a sameness in the indications, so far as the gen-

eral treatment is concerned would necessarily be the most rational course to be pursued, provided we have a remedy, or remedies, the curative agency of which is calculated to moderate or immediately overcome the disease by removing the cause, and give nature a clear field to complete the cure.—This agent, in my opinion, we have found in Iodine and its preparations, it acting, not only, as an antidote to the poison, through the medium of the blood; but, also, as an alterative in rousing and changing the secretions, and as a tonic to the capillary system of the vessels, thereby instituting a curative process in the diseased parts by promoting a healthy action.—My method of using this remedy can, probably, be stated in no way more satisfactorily than by giving the history and treatment of a case of Phlegmonous Erysipelas that has within a short period been under my care, which is simply a fair comparative representation of many others of the same nature that have occurred in my practice since 1856.

Mch. 4, 1861, I was called to see Thos. Beal, aged 40, a farmer, was taken ill about four days previously with what he considered at the time a common cold. Had violent pains in the head, back and limbs, with occasional chilly sensations and flushes of fever for three consecutive days. Twenty-four hours before I was called, he could not bear to have the bedclothes moved on account of the slightest contact of air throwing him into a violent chill, notwithstanding there was great heat of the skin and thirst during the whole time. The night previously he was quite deranged, so that the family became alarmed and sent for me. I found him as just stated—pulse 120 per minute and full—skin hot—great thirst—no appetite and occasional wandering delirium. I gave him 15 gr. of calomel to be followed in three hours with an infusion of salts and senna, to be given until thorough purgation was produced. The local affection had commenced during the night on the left side of the nose, at first by a mere speck, and in ten hours it had extended to the eye and half of the cheek on the same side. After purgation he was to take the following prescription:

℞. Quin. Sulph. . . . . ℈ I.
Camp. Gum Pulv., ... ℈ I.
Potass. Chlor. . . . . ʒ I.
Ipec. Pulv. . . . . gr. V.
Verat. virid. Pulv. . . . . gr. X.
Morph. Sulp. . . . . gr. 1.
Misce—Fiant—Pulveres . . . . . X.

One to be taken every three hours. Between the powders I gave the following mixture in doses of one table-spoonful, in a common tumbler of water.

10 ℞. Potass. Iod. . . . . ʒ II.
Verat. virid. Tinct. . . . . gr. XXX.
Spts. Nit. Dulc. . . . . f ʒ I.
Aquæ, ... f ʒ III.

The local treatment consisted of an Iodine Ointment prepared in the following manner.

℞ Iod. . . . . gr. XXX.
Potass Iod. . . . . gr. X.
Alcohol. . . . . f. ʒ Ss.

Rubbed together in a porcelain mortar, till the Iodine is thoroughly dissolved. Then add Ol. Ricini f. ʒ III Ss. and triturate till it is thoroughly mixed. Bottle and it is ready for use. With this ointment I keep the diseased surface and two or three inches beyond, well lubricated by three, four, or five applications per day, if required to keep it soft. And, to digress a moment, this is one of the most beautiful as well as the most convenient preparations of Iodine Ointment that I have ever seen, and may be used in any case where the officinal preparation is indicated. March 5th. The inflammation had extended over both cheeks, closing both eyes, and down on the neck nearly to the clavicles and sternum. Pulse 100—full but soft—felt easier and rested better. Gave a dose of Ol. Ricini, and continued treatment adding gttXV of the Ferri. Mur. Tinct. to each dose of the mixture. March 6th. Found my patient in a mild perspiration, pulse full bowels had moved freely—during the night had free hæmorrhage from the nose—

felt still better—Disease had not extended during the last twenty-four hours. I now discontinued the verat. virid. and substituted half gr. of Opium for the Morphine and directed his powders to be taken every four hours, the mixture with the Mur. Tinct. of Iron as usual, between the powders. March 7th. Found my patient quite comfortable—the swelling had begun to recede—pulse 70 and soft—some appetite—feels cheerful—rested well during the night. Continued treatment, but lengthened the time of taking his powders to five hours—mixture between, but lessened the amount of Iod. Potas. in them, and diluted the ointment to one half its former strength, with Castor Oil. March 8th, 9th, 10th, 11th. Continued treatment during the daytime, letting him rest during the night. March 13th. Discharged my patient as convalescent and out of danger, leaving Ferri. Mur. Tinct. for him to take three times per day for several days, and ordered the surface to be kept soft with Castor Oil until the skin was sound and natural. During the whole course of treatment he was allowed to partake freely of animal broth, and when his appetite did not crave it, it was urged upon him as one of the means of cure, in the support it would give to the general system. As a change, when his appetite craved it, I allowed him milk porridge, thickened with corn starch. March 12th I was called to see Cyrus McCord, aged about 30. This patient was attacked very similarly to the former, the erysipelas, however, appearing on the right ear. In this case, the inflammation extended so rapidly that in 24 hours he was threatened with suffocation on account of the ædematous condition of glottis and the inflammation of the fauces and tonsils. For this latter complication I prescribed a gargle composed of Alum. Sulp. ʒ II. Ol. Cinnam. Tinc. f. ʒ IV. Acid. Sulp. Aromat. ʒ II. Kreosot gtt.XXX. Syrup. Simp. or what is always at hand, common molasses, f. ʒ III Ss. This gargle seemed to give very speedy relief, and acted admirably in soothing the inflammation of the throat. Otherwise the treatment and termination of this case, was essentially the same as the former one, so that I re

frain from any useless repetition. I have just now, March 29th discharged the third case that has occurred, in my practice, since the commencement of this article. This case occurred in the person of Mrs. Lamb, a German woman, aged about 50 years. The inflammation in this case commenced on the left fore-arm and was very painful, though the patient had no fever. The disease kept spreading for about five days—the surface was vesicated, and the swelliug enormous at the end of that time. It now, however, began to recede, and in four or five days longer my patient was discharged. The treatment in this case was also the same as the two former ones, only, I did not consider the veratrum viride at all indicated and it was therefore left out of the prescription. Neither did I give the Opium nor Quinine, to the same extent as in the two former cases. By the way, it may be proper here to remark that this last patient assisted in taking care of the first one mentioned, and in *dressing his face with the Ointment during his illness.* There is no doubt but in every individual case there may circumstances arise or complications exist, that would cause me to vary my treatment accordingly, in-as-much as every exigency that may arise must be promptly met with its appropriate remedies; but the general indications are always the same; and in *Iodide of Potassium* and the Iodine Ointment with the necessary auxiliaries, we have a certain, safe and speedy remedy. Since I have adopted this method of treatment, erysipelas, in my neighborhood, has lost much of its terror, and I speak to my patients, of their speedy recovery, as confidently as I do of interrupting a paroxysm of intermittent with the Sulphate of Quinine. I have given this remedy in doses of 20 grs. every two hours without ever having witnessed any of the poisonous effects spoken of by authors; but the quantity of water with which I invariably dilute it, may probably prevent any gastric disturbance, that might otherwise occur, if given in a more concentrated form. Its entire innocence, therefore, in my opinion, is settled, when this precaution is observed unless perhaps in cases of idiosyncracy,

which no doubt exist, as in regard to many other remedies and in these we would be compelled to resort to other means. In the case of children, that we cannot induce to drink so much water at regular intervals. I usually prepare it in the form of a nice syrup, and after they take it they will usually drink a sufficient quantity of water to prevent any evil consequences. I have used it in this manner with children six months old and upwards and have never observed any evil consequences from its administration, and have therefore settled down into the idea that it is one of our most agreeable, mild, and effectual remedies, and confidently ask the profession to give it a fair and impartial trial, and they will not be disappointed in its results, and they will be enabled in an ecstacy of delight to cry out with me, *Eureka! Eureka!*

CASE OF SCROFULOUS ULCERS OF THE LEG,—WITH INJURY OF THE ANKLE JOINT.—AMPUTATION FOR.

By L. B. BROWN, M. D., Iroquois, Ills.

Editors of the Chicago Medical Journal.—Henry Enshins, aged 66 years, a resident of Iroquois, Illinois, has suffered at intervals for several years, from scrofulous ulcers of the left leg; but never compelled to discontinue his attendance to business till October 1860, when he received an injury of the ankle joint jumping from a carriage. The foot and ankle became very painful and somewhat swollen.—Domestic medicine was brought into requisition, and faithfully applied for nearly two months, when a large sloughing ulcer presented at the heel, and several small ulcers about the ankle joint and top of the foot. A physician was now called, and

constitutional treatment brought to bear on the sore heel, but without relief. I visited the patient for the first time, in February, 1861. I found him in bed, greatly emaciated, having a voracious appetite, diarrhœa, and suffering from pain in the foot and ankle. The foot and ankle presented a horrible appearance, studded with fistulous openings, discharging a large amount of offensive matter; the tendo Achillis, muscles of the heel, and posterior ligaments of the ankle joint, were completely destroyed; leaving the oscalcis, tibia, and fibula, bare. I told the patient and family that he could not live, in the condition he was in; I spoke of amputation as the only chance for relief, but did not recommend it, owing to the extreme exhaustion. March 2d. Visited the patient to-day in company with Drs. Barry, Fowler and Dunn. After stating to the patient and family the certainty of death,—without, and the chance of recovery with an operation, consent was given, and the operation was performed. Chloroform was given as an æsthetic, the limb amputated in its upper third, just below the tuberasity of the tibia, by the flap method; very little blood was lost during the operation. The flaps were brought together by interrupted sutuses and strips of adhesive plaster, the usual dressings applied, and the whole confined with a roller bandage. The patient placed in bed, and brandy and opium given during the remainder of the day and night.

March 3d. Patient rested a part of last night after taking one half gr. Morphine. Pulse 80, no pain, except an occasional twinge in the stump; stump not disturbed. Ordered brandy and quinine during the day, anodyne at night.

March 4th. No change of importance during the last 24 hours. Continue the same treatment.

March 5th. Rested very well last night; no pain in the stump. Pulse 80, the flaps of the wound lying against each other without any adhesion, or evidence of inflamation; slight evidence of suppuration. Same dressings re-applied, and ordered in addition to brandy and quinine, beef-tea.

March 6th. Pulse 80, suppuration of the stump; discharging unhealthy pus. Ordered the stump thoroughly washed with tinct. myrry, and covered with pulv. charcoal. Continue same constitutioual treatment.

March 7th. Suppuration going on rapidly; stitches give way to-day: same constitutional and local treatment as yesterday.

March 9th. Patient exhibits signs of exhaustion; appetite failing, no pain; surface covered with cold perspiration; discharge from the wound copious, and offensive; the sown extremity of the tibia exposed. Ordered the surface sponged with sal. chlo. sodium; the same constitutional and local treatment as before, with increase of brandy.

March 12th. Patient thirsty, skin hot; pulse 90; stump inflamed for the first time since the operation, and somewhat painful; discharge from the wound not as copious. Continue the use of brandy, quinine and beef-tea.

March 15th. Patient improving; discharge from the stump greatly diminished. Some appearance of healthy granulation. Continue the use of brandy and quinine, together with a nutritious diet.

April 15th. The daily notes of the case since March 15th contain nothing of importance. The wound, owing to the impaired condition of the system, healed slowly. The patient is improving in general health; appetite good; diarrhœa stopped; and the wound nearly cicatrised.

The above case, I think, is one of interest, considering the advanced age, and the extreme debility of the patient at the time of the operation; I do not offer it, however, as an anomaly; but, from the fact that I have been censured (for operating) by a few meddlesome people, some of whom claim to belong to the Medical Profession.

REMOVAL OF FOUR INCHES OF THE TIBIA, FOR NECROSIS.

By M. M. EATON, M. D., of Peoria.

A Chamberlain, Esq , brought his boy, aged four years, to ny office, May 15th, 1861, stating that he lived in Tazewell Co. Ill.. and had been sent to me by Dr. McColl, (his family physician.)

Said that the boy fell from a door-step about one year since, a distance of eight or ten inches, that nothing particular was noticed till about one week afterward, when the knee joint of the left limb began to swell. This extended both up and down the limb, till the whole in three weeks became double its former size. Under treatment, however, this subsided in about four weeks and an abscess formed about an inch above the inner malleolus and considerable offensive pus was discharged.

Soon three other ulcers formed about the middle of the shaft of the Tibia. These also discharged offensive matter, and three small spicula of bone, and gradually merged in one. The discharge has continued till now, all efforts to heal the ulcer having proved abortive.

On examination, I found an ulcer, situated over the shaft of the Tibia, in its upper third, in length about one and a half inches and width one inch, exposing one inch in length of the bone, which was evidently badly necrosed and by probing I found that the disease extended about three inches. The general health of our little patient was good, the whole of the affected limb being, however, considerably atrophied.

I stated the case to the father, and recommended the exsection of the diseased bone, to the performance of which he immediately consented. I called in Dr. Hamilton to administer Chloroform, and proceeded at once to the operation. I found

the periosteum considerably diseased, but by incising it and using some care, I succeeded in peeling it off with a blunt instrument and leaving it *in situ* in the wound.

Nothing unusual occurred. I removed four inches of bone, so as to be sure and leave only that which was sound, placed a tent in the wound and applied the usual dressings. The ulcer, two days after, began to heal around the edges. The wound healed by healthy granulations from the bottom, and in four weeks both wound and ulcer were entirely healed.

Now, six weeks after the operation, the boy is able to walk well on the limb, new bone a little larger than the original having been deposited. There is left no obvious shortening or deformity.

A CASE OF SHOULDER PRESENTATION, WITH PROLAPSE OF CORD. VERSION BY EXTERNAL MANIPULATION. TREATMENT BY POSITION. DEATH OF CHILD.

By H. WEBSTER JONES, A. M., M. D.

I was called at 7 P. M., January 28th, 1861, to see Mrs. A. P., primipara æt 16.

The patient was upon the bed, suffering with severe labor pain, her clothing, the bed, and even the floor saturated with the liquor amnii, which had just been discharged in great quantity and with considerable force.

An examination detected the left scapula presenting, and a lengthened *prolapsus funis* protruding under the axilla through a dilatable os.

Manipulation of the child, through the abdominal and uterine walls, directing extremity (upward and inward), the (cephalic downward and inward,) resulted, after some time, in a complete correction of the mal-position, the head now engaging with the vertex towards the left acetabulum.

The cord, still largely prolapsed, and pulsating strongly, was now carried toward the right acetabulum, where it was least liable to pressure, and the patient assumed at my request the position upon the knees and chest, recommended by Dr. T. Gaillard Thomas.

During two severe pains, I attempted to maintain the fallen loop of cord within the uterus and beyond the head, but without success, when the patient refused utterly to bear another in that position.

The head at 3 A. M. bore upon the perineum, and checked materially the force of the fœtal circulation. Spasmodic movements of the child soon occurred, indicating its danger.

Another trial of Thomas' position failed, the pains pressing down in one direction when well supported in another, and at 4.30 A. M. the child was delivered, there having been no perceptible pulsation in the cord for nearly an hour. The usual means of resuscitation were resorted to, but proved unavailing.

The noticeable features of this case, are

1st, the probable effect of a sudden discharge of liquor amnii when in excess, as determining the mal-positions, as well as the *prolapsus funis.*

2d, the safe and efficient manner in which version was accomplished, under the conjoined and unfavorable circumstances of evacuated waters and a strongly contracting uterus;

3d, the discomfort and distress produced by the prone position, rendering it *in this case*, unavailable toward the restoration of the funis to the uterine cavity.

DIPHTHERIA.

By Dr. J. J. MORGAN, of Windham, Iowa.

In attempting to write a paper upon a subject involving such a multiplied nomenclature, such a diversity of opinion; and such a variety of treatment, it is hardly to be presumed,

that anything new, or more satisfactory, can be added to the many able productions that have been elicited since the prevalence of the disease in this country. I have at hand some fifteen different terms, by which the disease is professed to be known. As a choice of the numerous titles with which this affection is honored, there seems to be a preference for that of "Diphtheria," claimed to be expressive of the membranous exudation, which is a very prominent symptom, not to say an essential characteristic of the disease. So characteristic do I consider the exudation, that it is the first thing to which I direct attention, in order to make a correct diagnosis; (and contrary to some very high authority) it is to this that I look for a favorable or unfavorable prognosis. Taking into consideration in any particular case, the physical ability to withstand the effects of a severe local lesion, until its grave character can be modified. But what are the premises upon which these views are founded? In an epidemic which prevailed here during the last four months of the past year,—I was familiar with the affection from the mildest form up to those grave cases where death seems to have marked its victims at one sad stroke. The first and main thing that I wish to notice here is, that death did not occur in any single instance, where the false membrane was confined to the fauces, where the exudation did not extend to the larynges proper. But in all the fatal cases that came under my observation the laryngeal symptoms predominated. The inquiry that suggests itself is: why does not death occur in those cases where the exudation is extensively developed but confined to the fauces? Granting the supposition, (which is probably a true one), that the disease depends upon some blood poison; we are led to inquire, does the fatal result arise from the original vitiated condition of the blood, depressing the nervous centers as in malignant typhus? or are the aggravated symptoms and alarming fatality due to a materies morbi, the result of an imperfect acration of the blood consequent upon the obstruction offered to respiration by the local affection? I am led to fa-

or the latter view of the case, based upon the experience and bservation of over two hundred cases. And what I wish to naintain is, that patients die from the effects of local disease, nd not from the virulence of a poison with which the blood is ontaminated. That cases terminate fatally after the violence f the local affection has subsided, from debility, the result of ggravated or long protracted cases is true,—but that disease here death insidiously and quietly does its sad work, did not btain in the epidemic that rendered desolate some happy omes in this section of country. On the contrary all that orrid train of suffering that attended asphyxia was present in ll the fatal cases. But as intimated above, numerous opinons are entertained in regard to the pathology, classification, nd treatment of this disease; some very high authority mainaining the identity of diphtheria and scarlatina; others conending that diphtheria and croup are one disease; some afirming that constitutional treatment should be chiefly relied pon; while remedies directed to the local affection are merey collateral, others conclude that the local treatment is the nost important. The only conclusion that can be reached in he present state of information, is, that in certain epidemics he indications point to the constitution as the proper channel or interference; while in others to control the local affection offers the best chances of favorable results. I am led to grant he predominance of the constitutional symptoms, in certain epidemics over those arising from the effects of the local disease, not from any evidence presented in the epidemic that recently prevailed here,—but from the testimony of those who have observed it in a different form.

Dr. George B. Wood (Pract. of Med. vol. 1, p. 521) in speaking of pseudo-membranous inflammation of the fauces, says: "In the course of the complaint, the disposition to exudation often travels downwards, and the larynx trachea, and even bronchia become lined with the false membrane, which obstructs respiration, and often leads to fatal results. This exudation of the disease constitutes indeed its chief danger. (page 522 he says:

"When the local affection is considerable, the system is brought into sympathy, and fever is developed. (p. 524) By far the most important remedies are those addressed immediately to the part affected. There appears to be a disposition on the part of the writers upon this disease, to hold out the idea that it is to the systemic treatment that we must look for all favorable results. The view I take of it is this; that where the constitutional symptoms are of an aggravated character, the more formidable will be the local disease, the more rapid will be its descent to the air-passages; thus seriously compromising the life of the patient. This is the experience that has fallen to my lot. All that I wish to contend for in this connection is, that the constitutional treatment is secondary in importance, to the local applications; for I believe the majority of severe cases would succumb to the local obstruction, ere the systemic remedies, were they ever so potent, could alter the casis of the blood, neutralize its poisonous properties, and send a healthy flow of the life current, to stimulate anew the depressed nervous system. That local applications do effectually arrest the disease, when used before the air-passages are too seriously implicated, I think a fair trial will abundantly prove. Symptoms,—in some cases there is pain about the angle of the jaw and ear, and slight chilliness with but little if any fever. In others there is a decided chill followed by considerable febrile excitement, a rather feeble pulse, varying in frequency from ninety to a hundred and forty per minute total anorexia, thirst, and a general debilitated condition o the system. In still another class of cases there is no apparen indisposition, and some swelling of the glands of the neck,is th first thing that attracts notice. Now if the throat be looked in to before the disease is far advanced, there will be seen upo one tonsil, and sometimes on both, the characteristic exudatio In some cases small yellow or ash-colored spots will be all tha can be seen, in others the whole surface of the gland is cove ed, and in more aggravated cases, or those of longer duratio the whole fauces will be found to be covered from the velu

alati down as far as we are able to see. In extremely aggravated cases, the morbid substance continues to exude, until heavy coating of from one to two lines in thickness is developed. The color and consistence of the exudation varies much n different cases. If the downward progress of the false nembrane is not arrested, some degree of hoarseness will be bserved, but an entire suppression of the voice is rare. A eculiar barking cough is sometimes present, and is evidence f the implication of the air-passages, and consequently an nfavorable symptom. Now if the disease continues unmodied, symptoms of asphyxia cast a gloom upon any favorable ssue, in which we may have indulged. The countenance is nxious, respiration is laboriously performed, and calls to its id all the abdominal force. The patient manifests a restlessess that is painful to be seen—extends the arms upon either ide,—throws the body violently from one side of the bed to he other, rises suddenly up, and may even cease to breathe, hile sitting erect. Paraplegia has followed a limited number of cases under my observation. I have not any evidence f direct contagion, and conclude that if contagious at all, it s very feebly so, when the disease once prevails. I believe hat a want of cleanliness is productive of more cases than ould otherwise occur. The treament that I have usually dopted is as follows:

In mild cases, a portion of castor-oil with a few drops of urpentine may be given, using as a gargle a solution of nirate silver of ten grains to the ounce. If the disease is more ggravated, an emetic may be found beneficial, followed in a ew hours with some mild cathartic. Either immediately preeding the giving of the emetic, or soon after its operation, I ould apply to the throat, if the coating were very thick, luar-causic, in substance finely pulverized, touching only those arts which are covered with the exudation. If the coating s rather limited in extent and not very heavy, a solution vaying from fifteen to thirty grains to the ounce may be used. he applications will rarely need to be made more than twice

each day, and continue until the false membrane ceases to be formed. I usually administer chlorate-potassa in from three to ten grain doses once in from three or four hours, giving between each dose from one to four grains of quinine. I have thought vinegar steam a valuable adjuvant, enabling the patient more easily to discharge flakes of false-membrane, and any mucus that may be present. I do not hesitate to believe in the attested benefit of different preparations of iron in this disease, but have not resorted to their use. Chlorate-potassa and quinine form the basis of the constitutional treatment that I have employed with very good success. A free use of nourishment should be allowed. It may consist of ordinary food if desired by the patient; when there is anorexia beef-tea, soups, preparations with milk, wine-whey, etc., may be as freely used as the particular case will admit. After the violence of the symptoms have subsided, and the exudation ceases to be formed, it is a good plan to use some astringent gargle to hasten the healing of the abraded surface, and guard against the re-production of the false membrane. Acetate-lead and Tannin are probably among the best. Either of these may be used in the incipient stage of the disease with marked benefit, and where the onset is not too sudden and violent may conduct the disease to a favorable issue.

"EX OPTHALMIC GOITRE."

REPORTED TO THE CHICAGO ACADEMY OF MEDICAL SCIENCES MARCH, 1861.

By R. C. HAMILL, M. D.

I was called December 29th, 1861, to see Mrs. H—., a widow lady, in her 45th year, who was supposed by her friends to be in the last stages of consumption. She had been ill for the last eighteen months, and under the care at diff-

nt times of several physicians, before she came to this city, Nov. 1st., 1860. For three weeks immediately preceding my all, she had been declining very rapidly. She was not confined to her room, however, and came down a flight of stairs to see me.

I found her pale and sallow, reduced in flesh, exceedingly nervous and suffering great dyspnœa. When seated, she was obliged to lean forward to breathe with any degree of comfort. Her cough was constant, short and convulsive and the heart's action was distinctly perceptible across the room. Her hands and feet were always warm, and the temperature of the skin appeared to be above the natural standard. She could not bear so much clothing as others, and was uncomfortably warm in a temperature suited to the other members of the family.—Had at no time suffered pain except in the abdomen. Had frequent night sweats, swelling of the feet and ankles, and diarrhœa, her bowels being moved as often as once in three or four hours, the evacuations uniformly of a light clay color, appetite never satisfied, her tongue small and red, the secretion of urine small. She expectorated during the latter part of the night and morning, from six to eight ounces of tenacious white sputa, pulse 120 per minute. On applying my ear to the chest, a tumultuous, irregular action was observed, but of such an indefined and confused character, that I was unable to arrive at a satisfactory conclusion as to the true nature. The respiratory murmur was totally inaudible, ronchus was heard, only, under the upper part of the sternum. She sleeps on the right side altogether, with her head bolstered up.

The history of the case as far as I learned it at my first visit is as follows:

About one year and a half since, without any premonition, she suddenly ceased to menstruate; concurrent with which diarrhoea set in and has continued without material change up to the present time. Her appetite has been "like that of a child, almost uncontrolable" during a greater portion of that

period. Has not suffered from Leucorrhea, or in any way with disease of the reproductive system since the cessation of the menstrual functions. The diarrhoea, cough, and palpitation being the only causes of complaint. No remedies that she had ever tried had in any degree been attended with relief.

I failed to arrive at a satisfactory diagnosis, and made up my mind to prescribe for the over-working heart, hoping, if I could control its action, to relieve the dyspnœa dependent upon a congested state of the lungs that must of necessity exist, and as a probable sequence relieve the cough and expectoration. Accordingly I ordered veratrum viride ʒ ij—syrup of squills ʒ ij—acet morphine grs iV. One teaspoonful every six hours, with directions if nausea should occur to diminish the dose and lengthen the interval to eight hours.

I saw her again January 1st, 1861. The medicine had been well borne, and she had experienced considerable relief, especially at night. Did not cough so frequently, and had less difficulty in breething, pulse 95, treatment continued.

January 6th. She met me at the door with the exclamation, "Doctor my cough is gone and I have walked this cold evening around this block without coughing once." She had slept soundly all night and could lie upon either side with entire comfort, and had no dyspœa for forty-eight hours. Her bowels continued the same and the same inordinate appetite. In further examination of her case to-day, my attention was directed to the remarkable prominence of her eyes, and on enquiry, learned that that fulness had suddenly come upon her one night, whilst on a steam-boat excursion, about nine years since, and that about the same time the Thyroid began to enlarge. She had been troubled with palpitation some time before this. That she had been treated for the bronchitis with the various preparations of Iodine, internally and externally without ever experiencing any relief. That she had been nervous ever since, but was much worse since the "change of life," and that about once in five or six weeks she had increased violence of the cough and dyspnœa which would last for

ew days and then subside in part, each succeeding attack apparently leaving her worse than she was before.

The Thyroid gland was not much enlarged and had escaped my observation at the former visits. On examination I found both lobes of the gland elongated and indurated. The gland was crescent shaped, the cornua running up and burying themselves under the muscles of the neck, pressing firmly upon the subjacent tissues. The diagnosis was now clear. I had a case of "Ex ophthalmic Goitre." There was no throbbing of the gland, neither was there any marked fullness in the blood vessels of the head—nor pain in the head. Her pulse now 65 per minute, was still irregular; the nervous symptoms relieved. The state of the bowels remained the same. Auscultation and percussion revealed no organic lesion of the lungs. The veratrum viride was continued once or twice in twenty-four hours, with a view of maintaining the heart's action at its present status. Ext. Hyosciami ʒj, Nit. Silver grs X, sub. Nit. Bismuth ℈ji XL pills. One three times a day was ordered for the diarrhoea.

10th. The pills had procured some relief, the bowels being moved only four times in the last twenty-four hours, otherwise as at last visit. Treatment continued.

16th. Found her suffering from a severe form of Catarrh, which was very prevalent at this time in the city. Pulse 90, had taken the veratrum but once a day, bowels the same.—It is worthy of note here, that the occasional pains in the abdomen, of which she complains, ceased, upon discontinuing the use of a hair dressing, composed of lac sulphur and sugar of lead, showing the importance of knowing not only the regimen of a patient, but in some cases of being made acquainted with the mysteries of the toilet. The veratrum to be taken twice a day and the pills continued.

20th. Cough has been very troublesome, and the expectoration larger than ever before, loose, opaque and slightly tinged with green and easily thrown off, dyspnœa but slight, can sleep only on the right side, night sweats, pulse 70, no further

improvement of the bowels. Ordered for the cough, syrup morphine ʒ ij. C. Tinct., Benzoin ʒ ij. One teaspoonful of the mixture every four hours. The pills and veratrum to be discontinued, and the following mixture to be taken instead: Strychnine grs. jss. dilute Sulph. Acid ʒ ij. Mint water ʒ ji.—One teaspoonful three times daily.

25th. Greatly improved in every particular. Coughs and expectorates but little, bowels moved but twice in the last twenty-four hours, pulse 60. The fulness of the eyes appeared to be less, and she thought they closed more easily. I could observe no change in the Thyroid. The strychnine mixture continued, with the addition of one grain of Sulphate of Iron to each dose. Cough mixture suspended.

Feb. 1st. She is entirely free from cough, has no difficulty of breathing, no night sweats, can sleep comfortably on her back or on either side, tongue natural, bowels relieved, needs more clothing and requires as warm a temperature as the other members of the family. The Thyoid is evidently less, and not so hard, and the eyes less prominent, pulse 60 per minute.—Treatment continued.

Feb. 10th. The improvement highly encouraging. The same treatment was continued up to the time of her departure from the city, or the 11th March, at which time she was able to undertake a journey of nearly one thousand miles to her home. The irregularity of the heart's action continued, but I was unable to satisfy myself as to the true nature of the malady, but fear that there is organic leison which will defy the best directed efforts of the Physician.

I was induced to try the strychnine in this case, from the success attending its use in three cases reported by Dr. Murney, in the Dublin Hospital Gazette, and republished in the January No. of Braithwaite, coupled with the highly beneficial results I had obtained in my own practice from that drug, in chronic derangements of the bowels. In the February No. of the London Lancet, C. Hanfield Jones reports two cases, the symptoms and treatment of which correspond in a remarkable degree with this case.

It will be observed that I obtained the same result with the veratrum viride and morphine that M. Trousseau, and the French practitioners derived from full doses of Digitalis Venesection and the cold douche. How much the treatment might have conspired to the permanent relief of the patient, I am unable to determine. The relief to the dyspnœa, cough and palpitation, on the eighth day was complete; but the diarrhoea was in no degree relieved. I should most probably have continued the pills, and occasional use of the veratrum with the hope of ultimate relief, if it had not been for the attack of Catarrh, which I found her laboring under on the 16th January, and which in a great measure had re-established the symptoms that existed at my first visit, the diminished dyspnœa and the state of the pulse, (90 per minute), being the only modifications perceptible at that time. The veratrum viride and the pills were continued until the active stage of the catarrh had passed and resolution supervened, which latter state of the case I found on the 20th, at which time I ordered the strychnine mixture.

There was no change in the proptosis, or of the thyroid gland, from the 6th to the 20th of January that I could observe, showing that whilst the veratrum and morphine had over-ruled the tumultuous action of the heart, and relieved the impending train of distressing symptoms, they had not, in a degree to be appreciated, removed what *I presume* to believe will eventually be found to be the continuing cause, namely, the indurated state of the gland; but left the patient liable to a recurrence of the malady, whenever the effects of the medicinal agent should have subsided, and exposure to an exciting cause should again occur. Venesection or derivative depletion in this case, would have been not only injudicious, in my judgment, but highly prejudicial, and calculated only, to deprive the patient of strength, when she was already in a state of great debility. Although she had a ravenous appetite and indulged it fully without distress to the stomach, yet the ingesta passed so rapidly through the alimentary canal

that a sufficient amount of blood-making material was not absorbed to keep up the powers of the organism.

M. Trousseau advances the opinion that this peculiar disorder should be classed among the "Neuroses." He admits that anæmia is very generally found to co-exist with "Ex ophthalmic goitre" but says that it depends upon a peculiar state of the blood as an effect, not as a cause," and resulting in "a great measure from the general perturbation observed in the function of nutrition." A cause may be of such a character, either from its inherent nature or from long persistent action, as to produce effects that cannot be healed by its removal. In the early stages of diseased function, if the cause be taken away, we have every reason to expect that the healthy organism will be reinstated in accordance with a natural law of the animal economy, but if organic changes have been established we might have a secondary cause, in that effect, operating upon the succeeding links in the chain of physiological relations, which has powers for evil, and is really as causative as if there had been no antecedent pathological action. The order of sequence in the characteristic symptoms of this disease, according to M. Tousseau, constituting the rule, is first, Palpitation, second Ex opthalmos, and third Goitre, co-existent with which have vicious nutrition as an effect. An effect of what? The deduction is, evidently of deranged nervous action, as the treatment indicates. If the poverty or impurity of the blood depends upon the pathological state of the nervous system, it follows as a necessity that that abnormal state of the blood must furnish an unhealthy stimulus to the nerves in return, which to a greater or less extent must debase and pervert their healthy influence. Taking for granted that the nervous system is first in the train of causes and effects, the fluids will be brought a state correspondent to that nervous action, and bear an equivalent relation to that derangement, in the same manner that the two systems do to each other in their normal condition, acting reciprocally on each other perpetuating the disease. If the treatment be addressed, properly, to the nervous

system we can overrule, in a great measure the pathological action, by subduing the capacity for, and the susceptibility to, the offending cause, and thus procure a degree of toleration which resembles health, and if there is simply functional derangement, we may initiate a state of the organism, that will favor healthy action and result, ultimately, in a perfect cure.

This disease, according to M. Tousseau is rarely completely cured. In all the cases that have come a second time under his observation, the thyroid was found to be indurated. This state of the gland itself, to my mind furnishes a sufficient cause for the return of the proptosis and palpitation. Its enlarged and hardened substances pressing upon the vagi nerves suggest, at once interference with sympathies that reach the heart, and the idea is by no means visionary that the first link in the chain of pathological effects may be traced to the gland, and the failure to get a complete cure by the French practitioners may be owing to the fact that they have not recognized the primary importance of this peculiar condition of the thyroid body.

As to the cause of this singular disease I will not attempt even a speculation. The suggestion of Dr. Murney that it has its origin in mental impressions, is plausble. His deduction that bronchocele is the result of impaired innervation, or perverted action of nervous functions, in his locality at least, and not dependent on climate or snow water, as has been alleged in other countries, is new to me, as well as his views in relation to the functions of the thyroid, which he says is "analogous to the spleen, first in a mechanical view acting as a diverticulum to the brain, as we know the spleen does to the stomach; and, secondly, in its pathology; enlargement and congestion of the spleen are often, in certain localities, the result of malaria; very often it is caused by affections of the mind, and the remedy for this affection of the spleen is either tonics or astringents, or both."

In relation to the treatment, I have further only to say that the results obtained from the veratrum and morphine, although

prescribed before I had reached the diagnosis of the case, were in the right direction, and arrested the depleting process carried on through the lungs by quieting the action of the heart and arteries, and allaying the general nervous excitement, but failed to furnish any hystogenic powers to the nutrient system. The strychnine and subsequently the iron were prescribed, with the hope of meeting this feature of the case. The result furnishes all the comment necessary.

The cause of the proptosis is a subject of considerable speculative interest, not so much in a therapeutic point of view, as from the hidden nature of the facts. Fatty hypertrophy, œdema of the cellular membrane and sanguineous congestion have each had their advocates, but have each failed to receive any satisfactory support from post mortem observation. A more probable conclusion, to my mind, is that the same state of pausis, that gives rise to the palpitation, extends to the orbit, impairing the energy of the muscles within it. As evidence of this, we have a drooping condition of the upper eyelid, resembling Ptosis, dependent upon a relaxed or atonic state of the levator muscle which discharges its functions with apparent reluctance. If the other muscles of the orbit are in the same state, as we have good reason to infer from their relative functions and sympathies, then the deformity can at once be accounted for. If the restraining force exercised upon the eye by the muscles proper to it be impaired, the effect would be to let the globe fall forward, and this outward tendency would be strongly favored by the pressure of the arterial circulation. During the paroxysms, which, according to M. Trousseau, are essential characteristics of this malady, it is highly probable there may be sanguineous congestion, and that during their intensity there is pain and fullness in the head; but when the paroxysm subsides, the fullness is only in part relieved—the tension is taken off, but the ex-ophthalmia still exists. Further, in support of this view, the deformity, occasionally, occurs in a very short space of time and without the knowledge of the

patient, the first intimation of its existence being conveyed by some member of the family who has observed the changes. That was the fact in relation to the case of Mrs. H. During the course of my attention to her, I observed no evidence of of congestion or of œdema. The conjunctiva lay in loose folds at its reflection from the globe of the eye lids, which would not have been the case if there had been œdema of the cellular strictures within the orbit, and there was no fullness of the vessels carrying red blood, either to the conjunctiva or the sclerotic coat, which would have been the fact if the vessels within the orbit had been in a state of great vascular turgescence. If it had been produced by sanguineous congestion adequate to such effects, the sudden fullness and pain in the orbit would have demanded the attention of the sufferer;—when, if paresis, from a remote cause, had produced such an effect the want of cognizance could readily be understood.—Myopia, another effect of this malady, in some cases, meets easy solution under this view. When the nerve filaments from the cerrical ganglia of the sympathetic, which animate the longitudinal fibres of the iris are subjected to pressure to such a degree as to interfere with their normal functions, dilation will be the result; which is one of the conditions of the eye upon which shortness of vision is supposed to depend.

Additional support is brought to this pathological view, from the results obtained from strychnia. The peculiar therapeutic action of that drug in certain forms of enervation, where there is no inflammatory action or organic leison of the nerve centres is well known. The benign effects obtained from its exhibition in this case, by Drs. Murney and Jones, furnish strong support to the propriety of the treatment and reflect an argument in support of the opinion that Proptosis is the result of paresis induced by pressure upon nerves distributed to and controlling the movements of the eye.

DE WITT COUNTY MEDICAL SOCIETY.

Society met in Odd Fellows Hall, in Madison, July 2, 1861. The President, Dr. Madden in the chair.

The meeting was opened with prayer by the Rev. Mr. Richards.

The minutes of the previous meeting were read and approved.

Drs. D. W. Edmiston, R. T. Richards and B. K. Shurtliff made application for membership. The Censors examined the applicants, and reported favorable to, and recommended their election.

On motion of Dr. Lewis, the report was received, and the candidates unanimously elected members of the Society.

Society adjourned to meet at 2 o'clock P. M.

Afternoon Session.

Dr. Tyler reported an interesting case of what was called Pneumonia, by a so called Eclectic Doctor of Wapella. The disease, however, proved to be an affection of the throat.—The case proved fatal, probably from the error in diagnosis.

Dr. Tyler also presented an interesting case of cardiac affection, which was examined by the members of the society. The case elicited a lengthy discussion, in which all the members present participated.

Diphtheria, the subject for general discussion was taken up, but for the want of time was cut short.

Dr. Wright gave notice that he would read a paper on Diphtheria at the next meeting of the Society.

Drs. Edmiston and Adams, the regular Essayists were not present. Dr. T. W. Davis was also expected to read a paper, but did not. He was excused. Drs. Edmiston and Adams were continued. Dr. Richards was also appointed to read an essay at the next meeting.

On motion, the thanks of the Society were tendered to the Odd Fellows for the use of their hall.

On motion, the thanks of the Society were tendered to Dr. Tyler and lady, for the excellent dinner gotten up at their expense, for the Society.

On motion, the proceedings of this meeting were ordered to be published in the Central Transcript and Chicago Medical Journal.

On motion, the Society adjourned to meet in Mount Pleasant, the first Tuesday in October next, at 10 o'clock A. M.

JOHN WRIGHT, M. D., Se'y Pro. Tem.

BOOK NOTICE.

A TREATISE ON HUMAN PHYSIOLOGY, BY JOHN C. DALTON, Jr., M. D., PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

We take pleasure in adding our mite of praise to this invaluable and universally popular work. As a text book—in our estimation, it is superior to any in use. While the language is elegant and classical, the author's meaning is everywhere apparent on the surface.

What adds very greatly to the value of the work, is the author's account of his repetition of experiments—both new and old—with a description of the modus operandi of their performance, thereby giving to his labors the freshness of originality—a merit sadly wanting in most works on this subject.

We observe that our author fully sustains M. Claude Bernard's theory of the glyco-genic function of the liver—a speculation which has been roughly handled of late by F. W. Pa-

vy, M. D., Prof. of Phys. in Guy's Hospital, Lecturer, etc., London.

With regard to the sugar-making function of the Liver Prof. Dalton states that

"It has long been known that sugar may be abundantly secreted under some circumstances when no vegetable matters have been taken into the food. The milk, for example, of all animals, carnivorous as well as herbivorous, contains a notable proportion of sugar; and the quantity thus secreted during lactation is in some instances very great. In the human subject, also, when suffering from diabetes, the amount of saccharine matter discharged with the urine has often appeared to be altogether out of proportion to that which could be accounted for by the vegetable substances taken as food.

The experiments of Bernard, the most important of which we have repeatedly confirmed in common with other investigations, show that in these instances most of the sugar has an internal origin, and that it first makes its appearance in the tissue of the liver."

If a carnivorous animal, as, for example a dog or cat, be fed for several days exclusively upon meat, and then killed, the liver alone of all the internal organs is found to contain sugar among its other ingredients.

Again he observes that

"The sugar which is found in the liver after death, is a normal ingredient of the hepatic tissue. It is not formed in other parts of the body, nor absorbed from the intestinal canal, but takes its origin in the liver itself; it is produced, as a new formation, by a secreting process in the tissue of the organ."

Now while we are ready to affirm from experiment and observation that sugar is present in the liver after death, yet we take the liberty of introducing some of the experiments of Dr Pavy, showing we think, that there is at least room for doubt as to its presence in any appreciable quantity during life.

Dr. Pavy states that

"Under the mode of procedure that used to be adopted, it certainly seemed satisfactorily proved, that whilst the blood in the arterial system was almost free from sugar, that in the right cavities of the heart—that, in part, between the liver and the lungs—was highly charged with it. In obtaining these results, a specimen of blood was collected from an artery and examined. The life of the animal was then destroyed, and by an incision into the right auricle or ventricle their contents were procured. Now unless certain precautions are observed, the necesssity for which was not formerly known, such a method of experimenting must inevitably lead to a fallacious physiological conclusion. The knowledge required is of the state belonging to life, and this we fail to obtain unless we operate on blood, cardiac as well as arterial, that is collected at the very instant of death.

Again he remarks that

"I was first led to observe this variation in the condition of the blood that take place immediately after death, whilst experimenting on the injection of blood through some artificially inflated lungs, for the purpose of imitating what occurred during life. I had been in the habit at first of employing blood collected from the right side of the heart after death, but afterwards procured it from the living ventricle, by a process, so to speak of cardiac catheterism, an operation that is easily performed without leading to any sensible injury to the animal. An instrument is used that is specially curved for the purpose. It is introduced into the right jugular vein and passed down through the superior cava into the heart. I was astonished to find the blood thus collected present a totally different behaviour to what had hitherto been considered as belonging to it, from collecting and examining it after death. I had been accustomed to meet with a strong reaction of sugar as belonging to right ventricular blood, but in that withdrawn during life, I failed to discover more than a scarcely appreciable indication of the presence of the sacharine principle."

Again Dr. Pavy says that

"When blood is collected from the right side of the heart as in an ordinarily conducted examination after death, it yields a strong indication of the presence of sugar. In fine quantative analysis I found the proportion of sugar to vary from half a grain to one grain per cent. in defibrinated blood. When collected on the other hand, duriug life, under natural circumstances, the amount of sugar is certainly not more than is entertained in the arterial system.

Dr. Pavy disposes of the presence of sugar in the liver after death in this manner:

"It now occurred to me to examine closely the chemical relations of Hepatine as far as regarded its transformation into sugar. But, in the first place, knowing that hepatine was convertible into sugar by a kind of fermentation, a foreign substance—a strong solution of sulphate of soda, was injected into the liver immediately after death, to see if it influenced this fermentation and altered the amount of sacharine matter found. The result obtained induced me to proceed. Upon the injection of potash being performed, it was in vain I sought for the accustomed behavior of the liver. But the fact required collateral proof, as it led to so important a conclusion. That the potash had not destroyed the sugar, but simply prevented its formation, was shown by practising the injection upon a liver that had been allowed to remain a short time after death, to permit the production of sugar to take place. The result, under these circumstances, was, that the presence of sugar was as readily discoverable as if the injection of the alkali had not been employed."

Dr. Pavy found that high and low degrees of temperature arrested the formation of sugar in the recent liver. He says:

"The life of the animal being suddenly destroyed, the abdomen is immediately opened and a piece of liver excised as hastily as possible and plunged into the freezing mixture in which it is aftewards moved about; in a short time the liver is frozen hard. On removal it is cut in three slices, reduced to

a pulp in a mortar and thrown, a little at a time, into a small quantity of water contained in a capsule, which is to be kept thoroughly boiling during the process. If the specimen were allowed to pass through a gradual elevation of temperature to obtain the decoction for testing, the experiment would be vitiated, as sugar would be formed during the process of preparation. The liquid procured is a concentrated decoction of the liver. It contains plenty of hepatine, but gives no indication or, at very most, the merest trace of sugar.

So we are led to conclude from the result of Dr. Pavy's experiments that liver sugar is derived from hepatine by a process of fermentation occurring after death, and that this process can be arrested at will by using means that will prevent fermentation.

We find this the second edition is improved and enlarged by the addition of an entire chapter on the special senses, which were only incidentally treated of in the former edition, with many other additions of a valuable and interesting character.

In conclusion, we would most earnestly recommend this volume to the Medical public, as one that should have its place in every well regulated Medical library. F.

EDITORIAL.

Explanatory.—Circumstances of a personal nature over which the acting editor had no control, delayed the issue of the June No. of the Journal so late in the month that it was concluded to issue the June and July Nos. together as a double number. Vexatious delays have again been our lot, but the double number is finally out, and we trust will be found valuable and interesting on perusal. For the future we remark that, having wholly revised our publication arrangements, there will be a prompt issue each month, We have assiduously endeavored to supply all missing Nos. to those applying, and steadfastly believe that by our perfected arrangements, there will hereafter be no omissions from the mailing list.

Surgeons for the Army.—In view of the vast number of the profession now overflowing with patriotic impulses, it is suggested that the various applicants for appointments to the surgical ranks of the army be mustered into distinct regiments, or at least companies like the sappers and miners.—Let them be armed with long catlins and pill boxes, and when in the actual face of the enemy, demand of them, with imprecations as terrible as whilom used in Flanders, that they shall swallow the contents of the latter—or be carved by the former. No opposing force could withstand them—the effect would be surer than bullets, more disastrous than bayonets.

Apropos.—Has there been any response to the fervent appeal of the Dix-ie nurse at Cairo, for a liberal supply of rags for the salivated soldiery in the military hospitals of that delectable seat of war? Our spirit groans and our heart is disquieted within us, when we think of our gallant soldiers who went out from us to defend the nation and in quest of glory and have secured places in the hospitals and, in this June 1861—calomel sore mouths, necessitating an appeal to the

city and country for store of rags to absorb the abominable flux thereof. In the name of all the gods of war, where are the results of our much lauded Examining Board, now gone into melancholy retiracy?

Will a calomel sore mouth entitle to a pension and bounty land? Will its bestowal entitle the attending surgeon to a medal—leather or otherwise? We pause for a reply.

Measles.—It is not a little remarkable that in the various camps, both north and south, the most prevalent disease by all odds has been measles. The very general employment of vaccination has thus far deprived variola of its traditional terrors. But for rubeola we have, at present, no reliable prophylactic. The only recourse, therefore, is to judicious regimen and treatment. Now, strange as it may appear, the treatment adopted is almost as diverse as the different camps where the disease prevails. In their commendable anxiety to distinguish themselves, it is to be hoped that our military faculty may not be tempted to employ the old, exploded heroic, perturbating methods. Perfect cleanliness, good ventilation, very little medication and a few days time, are all that is necessary for the vast majority of cases. Don't fill the patient's stomach with drugs, or his bowels with slops—give him fresh air and clean sheets. These are the essentials of good treatment.

Dysentery.—This very common disease of camps begins to show itself in the hospital wards. Very serious difficulty is apprehended by some of the fraternity, at home, because the non-intercourse and blockade orders have largely diminished the supply of Ol. Terebin thinæ. North Carolina, the principal source of supply of this potent engine of attack upon the bowels and divers and sundry of their ailments, has by the strong hand of military power been shut up from a large share of "the rest of mankind." Alas for the distressed intestines of the soldiery, unless the stigma of contraband is removed

from this wondrous remedy. We are comforted in the midst of our griefs by the strong probability that our friend of the Nashville Journal, very much addicted to Turpentine in Typhoid fever, by virtue of the secession of Tennessee, need not be restricted in his use of this incomparable agent. We are waiting to see whether dysentery can be met and conquered without this very badly smelling and tasting elixir of life. Possibly it may be, and for ourselves, penitently and in all humility, we throw ourselves into the extended arms of the profession, and confess *ab imo pectore*, sinful soul that we are, that we believe ninety nine cases out of the hundred are better treated without than with the oozing abomination of the North Carolina pines. Free ventilation,clean sheets, a freely operating but mild laxative, once in twenty-four or at the most forty-eight hours,and then steady impression of general and local anodynes the balance of the time,being careful not to starve the patient if the disease persists beyond a few days—these measures we believe will more speedily and certainly carry the patient through, whether in camp, city or country, than all the calomel and turpentine secreted from the bowels of the earth or the woods of North Carolina.

Of the other fashionable method of treatment—salines, we have only to say, it will do if you urge not the salines to sensible effect upon the intestines too often.

Dilatation of the Cervix uteri.—Prof. Beverly Cole, of the Med. Dep. of the Univ. of the Pacific states that having failed in the use of the ordinary cones of compressed sponge he was led to prepare his own tents as follows:

"Select a fine piece of cup or surgeon's sponge, having melted a quantity of blanched beeswax in an ordinary vessel, the sponge is to be dipped into the liquid wax, and immediately placed between two smooth surfaces, (board or marble,) and a weight applied sufficient to compress the sponge and free from the surplus wax; in a few minutes it will be ready for use. By this process a flat cake of compressed sponge is

obtained, from which pieces may be cut of such size and at such times as required. The piece to be introduced should be well oiled and carried to the point of strictures by means of a long and slender forcep."

Pitting in Small Pox.—Dr. Stokes concludes: 1st. That the chances of marking are much greater in the sthenic or inflammatory, than in the asthenic or typhoid confluent small pox. 2d. That considering the change in the character of disease observed during late years, we may explain the greater frequency of marking in former times. 3d. That in the typhoid forms of the disease the treatment of the surface by an artificial covering, such as gutta percha or collodion, will often prove satisfactory. 4th. That in the more active or non-typhoid form the use of constant poulticing, and of every other method which will lessen local inflammation, seems to be the best method of preventing disfigurement of the face.

Question of Ethics.—A correspondent wishes to know "whether it is good ethics for a physician claiming an honorable place in the regular profession to advertise with a "puff" in his county paper, that he is a regular physician, and gives special attention to diseases of the lungs, and diseases of women?" The reply is forced upon us that he violates the spirit and letter of the "code." Nevertheless the practice has become so common, even in large cities, and among the notorieties of the profession, that the question resolves itself practically into one of aesthetics rather than ethics. In our opinion, it is vastly more creditable to openly advertise and honestly pay for such a notice, than to toady and bribe the "locals" of the city and country press to lug one's name into the "dreadful accident" and "remarkable events" columns, as the manner of some is.

We never could see any particular superiority in dignity over *dead-heading* printers, editors, devils and reporters, in practice for the sake of being characterized in the newspaper

columns, as the eminent, well-known, distinguished, skillful, experienced and learned Dr. So-and-so"—and in writing out one's own advertisement and paying for it like a man. As to the specialism involved, that is all *gammon*, of course, as the profession and intelligent part of the community already well know.

Climatic Influence.—The climate of California which seems remarkably favorable to recovery from the effects of severe wounds and surgical operations, according to the testimony of Dr. E. S. Cooper, appears to aggravate the effect of injuries of certain fibrous tissues. Sprains and bruises about the joints are exceedingly intractable, kindling up disease very apt to involve the subjacent bones. So also injuries of the periosteum. Difficulties of this species, which would be accounted trivial in the eastern states, there become of serious moment, and require extraordinary attention. Is this not attributable to the peculiar desiccant influence of the California atmosphere? In our own practice we find that persistent warm or even hot and moist applications are preferable to all others in relieving the effects of sprains and bruises in the region of joints or osseous surfaces.

The Placenta and the Phenomena connected with the animal and organic nervous system.

The modus operandi of various kinds of baths, sea-bathing, heat and cold, physiologically explained. Monographs by John O'Reilly, M. D. 1861.

The author of these monographs has been singularly industrious in prosecuting his researches into the phenomena of the nervous system. Without developing any essentially new ideas upon the subject, he has nevertheless succeeded in clearly stating propositions which are too often veiled in voluminous obscurity of language. It will be impossible for us to follow him in anything like an analysis of the pamphlets before us. In fact they scarcely claim to be more than analyses them-

selves. We need hardly do more than to direct the attention of that class of our readers who have devoted study to the subject, to these and others of Dr. O'Reilly's essays as worthy of their perusal, not as containing views worthy of their adoption indiscriminately, but as both suggestive of thought, and as evidence that thoughtful investigators are gradually freeing themselves from bold chemical mechanical, or worse than either, vague and empty *immaterial* notions. Dr. O'Reilly has made several steps upward from the cloudy speculations, and unsupported cob-webs of Prof. Paine, towards those clearly developed expositions as of the mechanism of nervous action which the latter gentleman characteristically misunderstood, and, misrepresenting, reached forth his skinny and ink stained digits to claim the offspring of his own brain.

There are, however, a few points in these pamphlets before us which we incidentally notice.

1. The author appears to recognize only stimulation and sedation of the nerves.

2. He speaks often of "contraction and relaxation of nerves."

3. That medicines act as antidotes.

4. That all nervous action is reducible to increase or diminution of motility in capillaries or nerves.

5. That poisons do not act by absorption but on the organic nerves.

In replication we aver:

1st. That the phenomena witnessed are wholly inexplicable unless something more than a quantitative change is admitted.

2d. That the phrase "contraction and relaxation of nerves" has no warrant either in observation or theory.

3d. That medical action is multitudinously various, not merely antidotal.

4th. That modification of motility either in capillaries, muscle or elsewhere, is but a single incident of nervous action, and that not an essential one.

5th. That the instances cited, by the author himself, most positively and conclusively prove that the majority of poisons act by local or general absorption, or both.

Our own views have been long before the profession. With regard to them, although our rightful claim to priority of elucidation was warmly contested, *the evidences are of record*, and we "bide the time." It is not our taste to haggle over priorities, especially with those who have but a glimmering of the matter. But we do rejoice to see the evidences of gradual approximation to the level of the true doctrine of nervous action, as first generalized and expounded by the present writer thirteen years ago, and "impressed" upon all his writings and lectures since. With Dr. O'Reilly's acute mind and industrious habits, both of study and writing, we shall expect him within a very brief period to shake off totally the trammels thrown around him by speculatists of the Paine stamp, and prove himself what he is capable of being, what he yet is not, an original and independent thinker and discoverer. Let him recognize *the molecular changes* which precede and follow the nervous phenomenon. Let him observe the uniformity of conduct of the fibre with whatever tissue its extremities may be in contact. Let him observe that the connection of nerve fibre is no more intimate with the, so-called, nerve vesicle than with the other changing cells or fluids with which its extremities are in relation. Let him observe that the character of the change produced by nerve action depends, not upon the nerve itself, but upon *the structure* which it influences. Let him recollect that to influence this nerve fibre with whatsoever "stimulus" it must be reached. If by medicine, by local absorption, or carried thence by the moving fluids effecting molecular and consequent nerve changes elsewhere—medicating or poisoning the blood as it occurs.

The operation of medicines through the nervous system and by absorption, are not incompatible as the vitalists vehemently assert, and as Dr. O'Reilly, in spite of his own senses to the contrary, still seems to believe—they are positively necessary to each, coincident and correspondent. The time has gone by when it must be believed either that the body is all fluids or all nerves. Solidism and humoralism in these latter

days have laid down together, and the true medical philosopher, humble as a little child before the teachings of nature, leads them in perfect harmony.

Constitution and By-Laws of the St. Paul Academy of Medicine and Surgery.—This neatly printed pamphlet, received from our esteemed friend Dr. D. W. Hand, evinces a state of facts exceedingly creditable to the flourishing city of St. Paul. Although numbering but nine members, at the end of a year from its initiation its permanency and success is established beyond the remotest doubt. Notwithstanding the monetary depression, the Society has been put in possession of two spacious gas-lighted rooms, suitably furnished, a superior microscope, an analytical chemical apparatus, an electrical machine, and has laid the foundations of a Medical Library. The Treasurer reports cash receipts during the year $620.72; expended, $462.93; balance on hand, $367.07. They adopt the National Code, and invite the visits of all traveling physicians.

This is the kind of Medical Society which we have long dreamed of as desirable—not a mere debating club, or where doleful and doubtful essays are read to yawning auditors; where dubious practice is bolstered up by lumbering and questionable relation of experiences; but where the solid foundations of study, observation and comparison may be laid. We commend the example of St. Paul to each town where congregate any nine regular physicians who really love the profession and do not merely choose to bray over its reform, elevation and dignity in very asinine fashion. Look at it—*nine* professional gentlemen, loving and seeking to honor their profession, neither start a reform school or a debating club, but sensibly contribute nearly *six hundred and fifty dollars*, in a single year, to get the means of doing something for the profession, the best and speediest method whereof being to bring themselves up to the level of the highest, by making use of the means which the fruitful science of the time commends to their hands.

What might not the city of Chicago do with similar effort and liberality?

Chicago to-day is the hot-bed of quackery in all its repulsive forms. The profession is torn with petty cliques, and stunned by the clamor of noisy "reformers." The pitiful followers of that pitifullest of all impostures, Homœopathy, receive here a countenance and support from many, even in the so-called higher classes of society, which make the intelligent members of the profession blush for human nature, and hang their heads for very shame that they have to compete for practice on that low level. We call upon the profession to assert itself, not by empty resolutions and kill-joy societies, but by imitating the example worthily held up to them by the little city of St. Paul. Anybody can talk—Good Heavens, we have had talking and writing enough—now who will do something? Meanwhile, St. Paul, here is our ☞.

Third Annual Report of the Chicago Charitable Eye and Ear Infirmary.—This institution, organized and conducted under the auspices of a number of the leading, public spirited and philanthropic citizens of Chicago, still continues its humane and highly useful career. We learn: That during the year ending May 1, 1861, two hundred and eighty-eight patients have been under treatment; namely: two hundred and thirty-seven with diseases of the eye, and fifty-one with those of the ear; making an aggregate of five hundred and eighty that have been treated since the opening of the Infirmary, three years since.

The Trustees are highly gratified at the general success attending the treatment employed, and from the results feel warranted in urging attendance at the Infirmary by patients at as early period after attack of any of these various forms of disease as possible. Considering the deplorable effects of tampering with organs so important as the eye and ear, we look with great favor upon an institution, eminently calculated as this is to prevent unhappy patients from falling into the

hands of the ignorant horde of professional oculists and aurists with which this, as well as all other large cities, abounds. We extract the following sensible and pertinent observations:

"The Surgeons would earnestly impress upon the minds of the trustees and of the public, that the great object of Charitable Eye Infirmaries is the *prevention* of calamities—the most terrible that can befall a human being. By furnishing the poor with gratuitous treatment for diseases of the eye, they remove the fear of expense, and thus encourage such patients to apply for medical aid in the earliest stages of disease, when most easily relieved. In this way they prevent not only blindness, but idleness and pauperism, with all their attending evils.

"Prevention of these evils is more politic, vastly more economical, and more in accordance with an enlightened humanity, than efforts to alleviate their sad and deplorable effects, after they once exist. Even on the ground of economy alone, is it not a matter worthy the careful consideration of all tax-paying citizens, that more than four thousand poor patients are annually treated at the New York Eye Infirmary, at an expense of only about *one dollar each*, while a class of less than one hundred pupils is maintained in the Blind Asylum of this State at an expense of not much less than *two hundred dollars each!*

Trustees—Walter L. Newberry, Flavel Moseley, William H. Brown, Samuel Stone, Charles V. Dyer, Dr. John Evans, Luther Haven, Cyrus Bentley, Ezra B. McCagg, John H. Kinzie, William Barry, Philo Carpenter.

Board of Surgeons—Consulting Surgeons, Prof. Daniel Brainard, M. D., Prof. Joseph W. Freer, M. D.; Attending Surgeons, Edward L. Holmes, M. D., Edwin Powell, M. D., Trustees Ex Officio.

The Dispensary of the Infirmary, in Ewing's Block, corner of North Clark and North Water streets, is open daily, from 11½ to 1 o'clock, for the graituitous treatment of the poor, afflicted with diseases of the Eye or Ear.

The Right Man for the Right Place.—The attention of the reader is especially solicited to the article which is reproduced on other pages from the *Am. Med. Times.* Every word of it is pregnant with truth, and as *pat* to this meridian as that of New York. With the exception of Prof. F. H. Hamilton, appointed to the Thirty-First N. Y. Regiment, we scarcely know of a surgeon of general eminence who is to be found in the military corps of the grand army of the United States. In the Southern army it is understood that this is quite different. Are not the surgeons of the Union as patriotic as those of the "Confederacy,"—or are the several State Boards of Medical Examiners, thus far selected, of such a character that self-respect will not permit either to go before them, or afterwards put themselves on the level of the "irregular practitioners, retired physicians, disabled political doctors, physicians unable to obtain a livelihood from sheer incapacity (who) have emerged from the Green Room, full fledged Army Surgeons?"

We might go a step farther than our *confrere* of the *Times*, and inquire: Are the Examining Board of the regular army up with the times, or do they survive in rank and position by virtue of the *prestige* acquired many years ago? The piping times of peace, during which these estimable gentlemen have been smoking their cigars and drinking their claret, have been prolific of medical advancement and discovery. We do know some that have kept pace therewith and some—quite otherwise.

It is true that the examinations for the regular service are conducted with very considerable vigor, but if *wrong answers are required to the right questions*, the applicant had better not pass, either for his own good or that of the unhappy soldiers who are committed to his charge. We admire a steady conservatism which prevents the incursions of wild theory and causeless innovation in practice, but we do not admire, or love or in any wise revere that stony inertia which resists all progress, and disowns all advance, which ignores all discovery and permits no place to new methods. Let the profession be

represented, at all events in the volunteer service, by men alive to the influences of the times, whilst thoroughly grounded in the wisdom of true science. Let the eminent men, not merely notorieties, be so indicated by professional opinion, that they can, without dishonor or discredit, accept positions in the army service without being obliged to seek back-stairs political influences, and running a tilt with all sort of competitors, like applicants for Washington clerkships and four-corner post offices. As it is now we see little hope of escape from the dilemma, unless the general government takes the matter wholly out of the hands of the petty politicians, who, for the most part, at the present time occupy the several Gubernatorial chairs in the loyal States.

Puerperal Convulsions.—A medical friend in the city has detailed to us, within a few days, a recent case of severe puerperal convulsions wherein venesection to the extent of thirty ounces, in an apparently favorable case, produced no mitigation, but rather an aggravation of the symptoms, but which was speedily relieved by Chloroform. The day for reliance upon bleeding in this distressing malady has gone by. Chloroform is now the central remedy.

A Treatise on the Practice of Medicine. By Edwin R. Maxson, M. D., formerly Lecturer on the Institutes and Practice of Medicine in the Geneva Medical College. Philadelphia: Lindsay & Blakiston; 1661. 8 vo., pp. 705. From the Publishers.

This is another of the strictly American works, the number and character of which, we are happy to see, are gradually becoming more respectable.

In the very modest preface, the author informs us that this volume is essentially a resume of his course of lectures at the Geneva Medical College, written during scanty leisure hours snatched from the duties of an active professional life. It is therefore a transcript from the record of experience of an intelligent, well educated and successful practitioner, giving

upon every page distinct evidence that while the author is familiar with the literature of the profession, he is at the same time imbued with strong practicality of views, which prevents him from being a mere compiler or rehearser of old time or new time dogmas. We do not hesitate to prophesy that "Maxson's Practice" will become a popular volume with practitioners, although not characterized by any strikingly original views in a strictly scientific sense.

In the discussion of each subject the author glances at the anatomy and physiology of the part treated of, being anxious "to have the mind of the reader fixed on the diseased part and its conditions." He observes: "I have attempted to draw up the work without even the shadow of empiricism, by taking the human system in health as the standard; and then noting the deviations from that standard, constituting the various morbid conditions or diseases. By taking this course I have been enabled to arrive at clear indications of treatment, from direct pathological conditions, for every prescription which I have made. This course by no means precludes the benefit of experience in the use of remedies; as remedies which are indicated from pathological conditions are always those which experience finds the most successful. I have preferred, then, to arrive at them in this way, rather than empirically, as it tends to lead the mind of the student and practitioner of medicine to prescribe for *conditions*, without reference to names."

This is most irrefragable common sense, and precisely wherein most writers and teachers of practice fail. It is true, most will admit the correctness of the abstract proposition, but unfortunately each one is wedded to some theoretic figment, or fastened astride of some hobby-notion, which vitiates too too many of his conclusions. Dr. Maxson has pretty generally steered clear of this difficulty, and even where we fancy that we can see pretty strong indications of his adhesion to views we cannot ourselves receive, his keen practical sense has triumphed over his abstract opinion. It has been his ambition to furnish the profession with a useful book, indicating

the rational progress of medicine, and not merely to attract attention and admiration by making it the vehicle of startling novelties and questionable methods. We venture to pronounce it, in the main, a success, and highly creditable to him both as an author and practitioner. It has been very little if at all heralded by anticipatory puffs or extravagance of laudation, but it will take rank at once among the *timely* books, and its author merit and receive the thanks of the working part of the profession.

The volume is printed in the usual excellent style of its distinguished publishers, but we regret to notice a very considerable number of typographical errors, which however a subsequent edition will of course correct. None of them, so far as we have noticed, are other than mere artistic blunders, the sense being uninjured. Written as the work is in the free almost conversational, style of the lecture room, there is at times a little looseness of expression, and occasional repetition, which we commend to the author for subsequent revision—we only mention them because we expect to see hypercritical reviews, with which unfortunately the medical world abounds, seize upon them triumphantly in order to make a glowing display of their own wisdom and littleness.—We do not like to favor snarling dogs with even a bone.

The work is divided into fifteen chapters, from the titles of which it will be seen that a general survey of the subject is given, viz:

Chap. I—Disease. Ch. II—Irritation, congestion, Inflammation. Ch. III—Fever. Ch. IV—General Fevers. Ch. V—Exanthematous Fevers. Ch. VI—General Inflammatory Diseases. Ch. VII—Diseases of the Nervous System. Ch. VIII—Dis. of the digestive system. Ch. IX—Dis. of the respiratory system. Ch. X—Dis. of the circulatory system.—Ch. XI—Dis. of the Eye. Ch. XII—Dis. of the Ear. Ch. XIII—Dis. of the Skin. Ch. XIV—Dis. of the Urinary Organs. Ch. XV—Dis. of the Genital organs.

By the praiseworthy exclusion of either original or quoted

theorizing from his pages, the author has found abundant space to notice this very extensive series of subjects quite satisfactorily, and to elucidate principles and methods of treatment, more nearly brought up to the level of the times than in any other book on the subject we now call to mind. In some particulars, however, we shall take occasion to dissent from his practice somewhat. Thus in the treatment of intermittent and remittent, we might remark that the doses of quinine are not by any means sufficient to cope with those diseases as they occur in the west and south—although they may answer well enough in the author's particular locality. We must not omit to state that the new remedies, and new forms of administration of old remedies, are fully brought forward into common use. We heartily commend this book to all of our readers.

Bed Sores.—Dr. Loomis Bauer has found the following ointment very serviceable in relieving bed sores:

℞ Glycerine optimæ, ... ʒv
Coque et adde, ... ʒj
Amyli, ... ʒss
Ext. Belladonnæ, ... gr. iij.
M. ft. ungt.

En Rapport.—A cotemporary Medical journal has a *spiritual communication* from a supposed defunct anatomist, late of this city, and more recently from Pike's Peak. It is supposed that in his gold digging in the latter region, he prosecuted his investigations to such an unusual depth, that instead of returning, he kept on and has enjoyed a resurrection among the antipodes. As usual in this kind of communications, the information imparted is of such questionable sort that we are led to exclaim over the departed, as did the poetical philosopher over the still-born child:

"When I think how quickly he was done for,
I wonder what he was begun for!"

Summer Course of Instruction in Rush Medical College.—The Summer Course in Rush Medical College was conducted by the gentlemen having it in charge, without interruption, throughout the period for which it had been announced in the annual circular. It was in every way successful, and the students in attendance express themselves in high terms of commendation of the teachings of the several instructors. We cannot forbear saying thus much, for we have noticed that the organ of a little clique which lives only upon its hatred and misrepresentation of this old established institution, for a purpose easily to be surmised, gravely announces the *discontinuance* of the summer course in Rush Medical College. Such pitiful exhibitions of spleen are scarcely worthy of *some* of the gentlemen connected with even that little coterie of disappointed individuals. One of these persons, claiming a certain amount of moral and even religious character, positively informed a patient, a few days since, that he had never heard of Dr. ——, with whom he had been a colleague in medical teaching for the greater portion of the last ten years! A reduction to such extremities argues a great want of faith in the individual's own hoarse eloquence about the "elevation of the profession." We commend him to his "class-leader."

Coffee as a Remedy for Pertussis.—The Boston Medical Journal revives the practice of M. Jules Guyot, of administering strong coffee for whooping cough. In one case a little girl six years of age was immediately relieved by doses of a tablespoonful and a half of strong coffee sweetened, but with milk, three times daily. "She had not a single whoop, after she began to take it." Other cases of marked relief are reported. Good, pure and strong coffee is to be used, the limit of the dose being the unpleasantly stimulating effect. A child of eighteen months will take half a cup of pretty strong coffee without any noticeable injurious effect. A little more experience is needed, and meanwhile we say,—"Important if true."

Quinine as a Prophylactic.—The Cleveland *Med. Gazette* for July urges the use of quinine as a prophylactic to intermittent fever. It observes: "We believe that all troops, stationed or marching, through malarious districts should be compelled to take from four to six grains of quinine daily.—Particularly should this be enforced at such places as Cairo, and by all sentries exposed at night, in localities where malarial diseases are prevalent. Every physican who has practiced in the great malarial districts of the west, we presume, is acquainted with this fact."

We must be allowed to observe that our own experience, based upon some fifteen years practice in a highly malarious western district, (not in Chicago where agues are as "scarce as hens' teeth,") has convinced us that this proposition is too sweeping. Where soldiers or civilians are exposed to malarious influences but for a few days at a time the practice is perhaps well enough, but when they are to remain any considerable length of time we should be despoiled by this practice of a valuable remedy. The system rapidly becomes accustomed to quinine, as to other cerebro-spinants, and inordinate doses are readily borne and necessary after tolerance is once established by use. The great objection to quinine is not its producing congestions or organic changes, but the evanescence of its influence. Scarcely any remedy is sooner climniated, and the simple "anti-spasmodics" assafœtida and valerian, do not sooner lose their power over the nervous system by repetition. Our own practice has invariably been to use quinine as an anti-periodic freely and in full doses, but not at all as a continuous remedy. The ordinary vegetable bitters and mineral acids are, in our experience, preferable where a continuous impression is sought. The decoction or Tinct. of Cinchona with the addition of Aromat Sulph. Acid answers a good purpose, but we especially prefer the Dilute Nitric Acid in moderate doses. The important point is to keep the health of the soldier above the level of the disease, and this object is to be secured by hygienic rather than

medicinal measures. But if any of the various forms of intermittent do occur, then arrest them at once—*at once*, with the quinine. Every hour the disease continues enhances the liability to a subsequent attack. Quinine will about infallibly do this, unless its efficiency has been previously exhausted by frequent use. We have scarcely met a case where by proper combination we have not been able to give this capital remedy as an anti-periodic. According to the circumstances of the particular case, any peculiar unpleasant effect it produces upon individuals may be counteracted, without impairing its febrifuge powers, by combination with the preparations of opium or other narcotics, capsicum, bisumth, hydrocyanic acid, antimonials, veratrum viride, alcohol, etc. None of these will prevent its anti-periodic impression. The great trouble in its use arises from the utter tolerance established by its continuous administration. Our opinion is summed up in the proposition that Quinine is inestimable and invaluable as an anti-periodic, and *ne plus ultra*.

Compliment to the Medical Profession of the United States.—The chairman of the great Sanitary Commission, advisory to the Medical Bureau of the Grand Army, is a Unitarian preacher, distinguished especially for his advocacy of theatres and dances as not necessarily mortal sins. It is understood that Phineas T. Barnum, Esq., and Mons. Blondin are to be honorary members, in consideration of the eminence they have respectively attained in their respectable avocations.—We respectfully beg leave to nominate the steamboat man, Geo. Law, Esq., and the renowned Christopher Carson, whom guide to the Maj. Gen. John C. Fremont over the Rocky Mountains. Meanwhile we have not a word to say about the Rev. Dr. President of the Sanitary Commission, any more than about the Right Rev. Bishop of Louisiana, who has doffed the robes of the spiritual church militant for the togs and small sword of the carnal general of a militia division. Our only fear just now is that we may be forced from the medical editorial tripod to fill some vacant pulpit.

New York Dental Journal.—This very readable and valuable Journal is well worthy the support of our friends immediately occupied in that branch of remedial art. May we call the attention of its editors to the fact that in the July No. they have ascribed the article "Removal of Parotid Tumor" to R. L. *Mead*, M. D., etc., instead of R. L. *Rea*, M. D.; and that both that and the following article on Puerperal Convulsions should have been credited to the Chicago Medical Journal? We dislike particularly to have other parties held responsible for our utterances. The omission in this case is clearly through inadvertance, and hence we can allude to it with greater freedom than to many similar ones we could mention, where our ideas and expressions have been bodily appropriated.

Iron in Cutaneous Diseases.—Prof. Cooper recommends strongly the use of the Ferro Cyanuret of Iron in doses of from two to four grains, gradually increasing, three times a day to children of a year and upwards suffering from *tinea capitis*. The remedy should be continued if necessary for several months. Locally he applies every third or fourth day an ointment consisting of equal parts of camphor and tar ointment with the addition of an eighth part of chloroform.

In the varieties of Psoriasis seen in California he commends an aqueous solution of the Pot. Tart. Ferri: two ounces to three of water—to be well shaken and applied every day to patches. The same solution is found useful as a local application to phagaedenic ulcers.

Eczema.—Local applications of caustic potash in various degrees of solution according to the apparent depth of the affection are again rising in favor, scabs and scales if any, should first be removed by use of warm oil and spiritus saponatus.—Subsequent irritation to be relieved by warm or cold water dressings as may be indicated.

Ephelis.—This annoying affection so common during pregnancy, sometimes remaining in a chronic state long after, rarely requires constitutional treatment. Daily ablution of the part with a mild solution of carbonate of potash, and after thoroughly drying it, applying with a sponge a lotion composed of equal parts of lemon juice and proof spirit, will generally remove the discoloration in a few days. The lotion should be continued however for a considerable period to secure a complete cure. Should this fail, a week solution, say a grain to the ounce of water, of Hydrarg. Bi. Chlorid will probably succeed.

It may be mentioned that among the manifold uses of Chlorate of Potash, not an inconsiderable one is its efficiency in several varieties of cutaneous disease—this among others.—Acne is particularly amenable to it. A solution of thirty grs. to the ounce of water is a suitable strength for a lotion for eudermic application.

Prurigo Pudendi.—Local applications are of little avail, although in some cases temporarily palliative. The symptoms being evidently of a reflex character, probably dependent upon irritation of the os and cervix uteri, as might be easily made manifest we have for many years been in the habit of directing local applications to the os, and upper portion of the vagina, of Belladonna or other narcotic, either in the form of ointment, applied directly upon the part, first dried by a sponge; or what is more feasible in practice in aqueous solution by vaginal injection. Nearly the same effect can be produced by exhibition per rectum. A much smaller quantity, however is requisite in the latter case.

If the ointment is preferred, it should be applied very carefully over the os in the proportion of one part to five or ten of the cerate. The injection may be used in the strength of from five to twenty grains to the amount of menstrum employing two or three ounces at a time. The recumbent position should be continued for one or two hours. Should symptoms of con-

stitutional affection be manifested, the parts should be freely washed so as to remove any portion of the medicine remaining. There is to be but little trouble to be apprehended from this cause, as much the larger proportion of the injection fails to be retained.

When the prurigo has been present for some considerable length of time the local change in nutrition in the labia is prone to exhibit itself in papules, aphthae and sometimes even very considerable thickening and induration. When these occur, the local treatment becomes useful as subsidiary, but cannot be relied upon for cure which requires removal of the cause. Several cases have fallen under our observation where caustic applications had been freely applied to the os without benefit, and indeed with some aggravation of the symptoms, but which were speedily relieved by the direct application of the Belladonna ointment. In our experience the carbonic acid gas has not proved of much service for this purpose. Chloroform proves too irritating, either in the form of vapor or as commonly diluted with Olive oil or Glycerine. Occasional advantage has been derived from the addition of from forty drops to a drachm to the ounce of Glycerine, or simple cerate, rubbed up with a few grains of morphine. In all cases of this troublesome difficulty too much stress can scarcely be laid upon the importance of careful regulation of alvine evacuations. Indeed very many cases require no other treatment. For this purpose laxatives of the mildest character are indicated.

Inflammation of the Mamma during Lactation.—Among the most common and troublesome of the dificulties of early lactation is inflammation of portions of the mammary gland. It seems upon observation of the methods of treatment in vogue that some practitioners overlook what is frequently the essential cause of the disease, to wit, a disordered condition of the uterus. An almost endless variety of local applications to the gland itsef are proposed, many of them well adapted to

relieve the local difficulty, but in very many cases all these prove of little avail. Recourse must be had to measures which will correct the morbid state of the uterus or its appendages. In every case presented, this requires especial notice. The synergies of the uterus and mammae are perhaps more remarkable than any others in the system. The mere presence of the lochia, and absence of uterine pain or tenderness, will not alone disprove the presence of grave uterine irritation which is expended in reflex symptoms manifested in one or both of the breasts. In our experience, attention to the condition of the uterine organs furnishes the best prophylactic against mammary abscess. Refrigerant and sedative applications to the breast, keeping it lightly covered or wholly exposed, thoroughly drawn, and then relieving uterine disorder by such remedial agencies as may be indicated, have succeeded in preventing the formation of abscesses which seemed irrepressibly imminent. Whereas, in similar cases, reliance upon local treatment, of the most varied character, has wholly failed to prevent thei rformation. It is deemed unnecessary to do more than to call the attention of intelligent practitioners to this idea, in order to materially modify the practice too often depended upon.

Abortive Treatment of Typhoid Fever.—Prof. Austin Flint, in a recent clinical lecture, whilst admitting that his own ideas are not settled upon the point, nevertheless thinks that the results justify further trials of the remedies to this end. He appears to incline to the opinion that opium is the more important agent. Dr. O. C. Gibbs, in commenting upon this practice, suggests four grain doses of opium with ten or twelve of quinine. He says: "The remedial powers of quinine, we are confident, are not sufficiently appreciated by the profession. This combination may not be adapted to all cases, but having given it in puerperal fever, pneumonia, and a variety of other febrile diseases, with a success that is satisfactory to us, we should not fear to give it

a trial in nearly every case of typhoid fever. Such cases here have been remarkably few, but to such as have fallen under our charge in the last two years, we have given the remedies, in smaller doses it is true, but oftener repeated, and never to our regret."

In those cases where remittent fever assumes the continued or typhoid form, we have been in the habit of using this combination with great confidence and advantage, but in ordinary typhoid, whilst the opium has proved itslf in full doses an admirable agent, we have found little benefit from quinine, except, perhaps in the later stages of the disease. We have no confidence in any remedy yet presented to avert the disease, although we see no reason why something may not yet be discovered which will do the work. But judicious use of the means we already have will, in nine cases out of ten, conduct the patients to convalescence in from twelve to sixteen days. We have elsewhere enlarged upon this point.

We live in Deeds not Words.—A blatant medical reformer in this city distinctly and knowingly violated the "code" Sunday, July 21st, and Monday, July 22d inst, and this is with him an everyday occurrence, as many gentlemen of the profession in this city will testify whenever required. We give due notice to this gentleman, and any other especial advocates of the "elevation of the profession" that we shall make an *expose* of these unprofessional acts, unless a speedy stop is put to them. We suggest that it is better to elevate than to be elevated. Meanwhile "the rod is in pickle."

Medical Communications and Proceedings of the Connecticut State Med. Society. Sixty-ninth Annual Convention, Hartford, 1861.—This is a very interesting pamphlet, being the second number of the volume, the whole being now published so as to be preserved in a permanent form. President Woodward's Annual Address is upon the somewhat general subject—Life. Amid a variety of ingenious speculations of a

highly interesting character, are interwoven many valuable suggestions of a practical nature, and doctrinal ideas worthy of reflection.

Dr. J. B. Lewis furnishes a well written article on hereditary predisposition; and Dr. L. S. Wilcox a Sanitary Report for the county of Hartford, 1860. Dr. Wilcox from his statistics finds that while the average proportion of mortality of females to males under five years of age is as 100 to 110 8-100 that from this age to forty-five the proportionate mortality of females increases. The indications from these and other statistics is that taken together in all ages, nature very fairly maintains an equilibrium.

Several prominent medical men, now deceased, in the State are suitably memorized. The most generally eminent of those noticed is Prof. Wm. Tully. Prof. Tully was unquestionably one of the most generally learned men of our profession this country has known. His services to medicine more particularly consist in the result of his large attention to many indigenous remedies—we may mention Conium, Sanguinaria, Cimicifuga, Veratrum, Asclepias, etc., etc. With vast attainments, the mere stealings from which have made many little men notorieties, he had very little practical tact, and within our own memory failed as a successful general practitioner of the healing art. He was emphatically a man of books—a walking cyclopædia. Intensely wedded to his peculiar ideas, no unfortunate practical result whatever could shake his unwavering confidence in his preconceived theories. With little in his private deportment to attract friendship, he commanded respect by the unsurpassed extent and variety of his acquirements. His own life, like his semi-finished work on materia medica forcibly illustrates the *embarrass du richesse*. He never organized his knowledge into a faculty, or could wield it as a power. Thus his works, like his life, are almost invaluable to the medical scholar, but of limited worth to the plain practitioner.

We can put our hands upon at least half a score of gentlemen who have become the next thing to famous, by simple *absorption* from the writings of Tully.

Judging by its fruits the Connecticut State Med. Society is a prosperous and highly useful institution.

Oil of Turpentine as an Anaesthetic.—Among the manifold uses to which this article has been put, Mr. John Wilmshurst in a communication to the London Lancet, March 1861, introduces anæesthesia. He avers he has tried it, administered sprinkled upon a handkerchief, by inhalation, in several cases of severe neuralgia and minor surgical operations, and that it seems to allay pain, nervous irritation and spasm without deranging the action of the heart, and produces a calm anæsthetic sleep. *Credat Judæs Appella.*

Teeth Drawing without Pain.—Rub the gums with the following solution by means of a bit of lint or cotton steeped in it: ℞ Chloroform ℥ iss., Tinct. Aconite, Spts. Vini aa ℥ j Morph. Sulph. gr. viij M. For which the American Druggists' Circular is responsible.

Epilepsy.—Prof. McGugin, of the Iowa University, strongly recommends the Hydrocyanate of Iron as an empirical remedy, and says that several cases under his treatment had no doubt been cured by it. He first suggested its use for this purpose.

Quinia.—The Society of Pharmacy of Paris, have offered a prize of six thousand francs for the discovery of a substitute for quinine, or for a method of artificially forming it.

The Year Book.—Owing to the stringency of the times, and consequent limited number of subscriptions, Dr. O. C. Gibbs has postponed the issue of his contemplated "Year Book of American contributions to Medical science and literature.

Medical Colleges.—Apprehensions of unprecedented mortality exist among the colleges. The young gentlemen are either off to the wars, or are brief in finances from similar military causes. The peculiar position of Chicago is such, however, that we feel warranted in stating to that considerable portion of our readers who have an interest in the matter, that the prospects of Rush Med. College were never more flattering than at present. The Secretary informs us that the number of letters of enquiry received thus far, materially surpasses those at the same period last year. Notwithstanding this, however, we shall not be surprised to hear that the total number of medical students in attendance upon medical colleges throughout the country, will scarcely be more than half or two thirds the usual proportion. We hear that one of the prominent eastern schools which has usually had a class of not less than five hundred, thinks that it will do well if it secures one hundred and fifty the ensuing winter. It is to be hoped that in the competition thus likely to arise, there will be no further resort to the contemptible methods employed by sundry parties a year since in attempting to build up their own institution at the expense of an old established school? *Verb sap.*

Army Surgeons at Manassas.—It rejoiced the editorial heart to hear that Prof. A. B. Palmer, of the Mich. Univ., Philom of this city, by assiduous use of his legs, escaped being "forwarded to Richmond" subsequent to the recent disaster. What would the Am. Med. Association have done for a parliamentarian? Who would have aided * * * in poising the lever of "elevation" *under* "the profession?" We shudder at the remote suggestion.

Unblushing Effrontery.—A person, whom we shall not further characterize, publicly advertises in a prominent daily paper of this city, "A Retreat for Females,"—the character of which may readily be inferred from the following extract: "Also those unfortunate cases of females who by 'deformed

pelvis,' 'constitutional disability,' OR OTHERWISE, cannot with safety become mothers, will find the "Retreat" a safe place for their relief."

Comment is unnecessary, but meanwhile where are the Grand Jury?

An Adroit Dodge.—A contemporary medical publication carries upon its title page the name of a local *attache* of one of the city papers. It thus secures a temporary reprieve from summary dissolution, long threatened, and meanwhile the "local" aforesaid manufactures almost diurnal notices of the weakly "Reform School," to the especial interests of which our contemporary is devoted. A leading proprietor of the city paper involved stated the other day in our hearing, that the multitudinous notices referred to were admitted on the benevolent principle of helping the weakest party—"the under dog in the fight."

Opposition Lines.—Newspaper puffing, audacious mendacity; the assistance of graduated milkmen, whose untimely advent to the medical profession, the abandoned herds and withal, mankind deplore; the assiduity of hired runners and *claquers;* the unscrupulous laying on of hands upon, as yet unconsecrated theological students; the inveigling of incautious strangers to places they did not dream of seeking, may be material elements of professional "reform and elevation," but we have been accustomed to give them *other* names.

Internal Application of Ice in Uterine Hæmorrhage.—Our friend, Dr. Teal, of Albion, Ind, in a private letter, gives us the following note:

"A medical friend related to me the following case: "I was once put to my trumps while trying to repress uterine flooding in a case under treatment. I went out and cut a piece of ice to the size of a medium nutmeg. This I introduced holding it between my fingers and letting it slip from them

into the cavity and against the wall of the womb. The flooding instantly ceased."

We have no doubt that this mode of applying ice in controlling uterine hæmorrhage might be made available more frequently than it is. It is a favorite method with several practitioners of our acquaintance even prior to the use of the usual battery of appliances. It requires, however, care and judgment in its use, or subsequent inflammatory action may be lighted up. Ordinarily, we have found it free from any unpleasant results.

Medical Journals and the War.—The faces of our Southern exchanges are missed from the editorial sanctum, and we are free to say that no other contraband of war is more regretted in absence. We had little thought so soon to miss their genial pages, and their always instructive contents. Fare you well, dear Bowling, prince of jokers—Campbell the scholarly; Dowler, the indefatigably industrious; Byrd & Hauser, with the portrait of GEORGE MCLEILAN upon the title page of your capital monthly—farewell till we meet again, when the fife has done squeaking and the drums are done with their racket, when red-legged gentlemen no longer either fight or steal chickens, when doctors no longer rush before Examining Boards and thence to the tented field—when the preacher resigns the presidency of the Sanitary Commission, and the newspapers chronicle the exploits of the myriad M. D.'s, home from the wars. Until then—Farewell! We keep our *files* for you, not to spike your guns or ours, but to transmit by regular course of the UNITED STATES mail.

[The following article was received too late for insertion in the proper department.—Eds.]

"SIMILIA SIMILIBUS CURANTUR," OR LIKE IS CURED BY LIKE.

READ BEFORE THE MCLEAN COUNTY MEDICAL SOCIETY.

BY C. R. PARKS, M. D.

Mr. President: In complying with the request of the McLean County Medical Society, I will state that my object is not to attack any particular theory of Medicine for the mere sake of making it appear absurd, but for the express purpose of ascertaining whether the above Homeopathic maxim has any foundation in truth. Tis truth we should aim at. I shall therefore endeavor to investigate this Homeopathic law, in an open, fair, candid, and I hope impartial manner, and see if it is in reality "one of the fixed laws of nature," as claimed.

The above *supposed law* is, together with "*infutesimal doses*," the sum and substance of the Homeopathist system of medicine—its real essence.

The question has been asked, How does it cure? In what way? "We believe—says a Homœopathic in reply—that the Homeopathic medical agent cures disease, *because the drug force in the agent is in relation of affinity—in the same way as the force in the magnet is to the iron—to the natural disease, superior to those which exists between the disease-producing agent and the physiologized tissues.*" If there is any meaning in this attempt at an explanation, I take it to be this: That there is a strong affinity or attraction existing between the "drug force" and the "natural disease," as in the case between the magnet and the iron, and that this affinity or attraction is stronger than that which exists between the disease-producing agent and the physiologieal tissues. This is the brittle thread upon which hangs the whole theory of the

system of medicine called Homeopathy; that system which, if true, ought to do away with all the ills flesh is heir too, rejuvenate with most marvelous certainty, the *maid* of forty-five summers, and drive pains, like the fleeting vapor before a nor'-easter, just as well as to do what it now does—supply a means by which broken-down clerygymen and unsuccessful regulars and quacks may earn a livelihood with but little preparations, say a pamphlet on symptoms and a pocket-case of beautiful little pills such as are recommended for family use. Suppose there is a strong affinity between the "drug force" in the agent and the "natural disease," what does it amount to? And suppose it is stronger than that which exists between the "disease-producing agent" and the "physiological tissues," what better does that make it? Will the force in the agent with its affinity for the "natural disease" *draw* the *latter* to it as the *magnet does the iron?* Is such the idea? But 'tis acknowledged there is a lesser affinity between the disease-producing agent and the physiological tissues. What becomes of this affinity? It is causing disease, while the other is attracting that which it causes. Such being the case, 'tis easy to see there could be no cure. One agent is producing that for which another agent or force has a stronger affinity. Suppose a person is in the habit of using certain articles of diet, which invariably cause a superabundance of acid in the stomach. 'Tis known there is a strong affinity existing between acids and alkalines. We administer the latter and it neutralizes the former, but does it remove the *disease-producing agents* or *that which causes the acid?* Certainly not. Yet it does it, just as much, as the strong affinity which causes the agent to attract the disease, removes the affinity between the disease-producing agent and the physiological tissue, and no more. And yet such is the profound explanation of "Similia Similibus Curatunr."

What sense is there in the statement, that there is affinity between the "drug force" and "natural disease?" Disease "is a state of body in which the natural functions of the

organs are interrupted or disturbed," "an opposite state to that of health." Would it not be much more in accordance with facts, to say that in curing disease the "drug force" operated upon the *disease-producing agent* or *that which brings about* or *continues* this "opposite state to that of health?"

We will now give our views of the vital forces controlling the economy, and state how these forces receive the material upon which they operate, and which in turn operates on them for good or for evil.

The laws of nature are fixed, so that in order to bring about any desired result, or avoid a calamity which follows the infraction of a fixed law, we must understand the true character and operation of the law. Some laws can be demonstrated. The operation and character of others are only inferented from legitimate deductions. If I can give a more rational explanation of the modus operandi of medicine in curing disease than the aforementioned *Homeopathic rationale*, and sustain it by incontrovertable examples, proving or going to prove its correctness, then will I have accomplished all I desire or expect —the vindication of *Regular Scientific Medicine*.

In the animal economy we have various systems, such as the nervous, muscular, arterial, glandular, &c., &c., each of which is presided over by a *force* or *law* of its own, or more properly speaking, forces of its own, as several forces are combined in the organic and functional arrangement of one of these systems. These different systems are specific in their purposes and aims. We will endeavor to elucidate our idea, by taking an example from the glandular system—the liver. There is in the liver a peculiar specific law for each different part and function in the organ, one for selecting material and manufacturing *lobules*, while others form within the lobule "a plexus of biliany ducts, a venus plexus, a continuation of the branches of the portal vein, hepatic vein, and of the minute arteries, veins and absorbents." There is a manufacturing law, as it were, for each of these different parts entering into and composing a lobules. The lobule having been con-

structed, there is an object, a destiny, a mission for it to fulfill. Another law then comes into active life and uses this lobule in a specific way to the accomplishment of this object or specific purpose. There is in fact a double purpose to be accomplished by this lobule, consequently there must be—many forces or modifications of this same force. "One separates the impurities from the venous blood of the chylo-poietic viscera, previously to its return into the general venous circulation, the other secretes a fluid necessary to chylification"—the bile.

As there is a force for construction, so is there one for destruction, breaking down in a peculiar way and casting off each lobule as soon as it has fulfilled its destiny. It will be understood then, that the same forces which enter into and control the simple lobule, are exactly similar to those controlling the various lobules composing the entire Hepatic Gland. They are all similar in their actions, but entirely independent of each other, comparatively speaking, for a portion of the gland may take on disease, while the remainder continues perfectly healthy.

There is always a cause for every condition even though the most skillful physician may not be able to detect it. My object now is to show, that although the whole number of lobules comprising the Hepatic Gland are each governed by precisely similar laws, yet when a certain cause is presented which tends to interfere with their normal healthy action, it is not equally attracted by the whole number, but only affects those into whose presence it is forced, and not by them attracted.

The forces act upon the material presented in the blood, out of which they construct their respective organs and parts of organs.

The healthy blood is composed of 110 to 140 parts of red corpuscules in 1000, 2.5 to 3.5 fibrine, 68 to 70 pure albumen, salt, etc., in small quantities—Andral.

When there is an excess or deficiency of these principles, it constitutes a morbid state of the blood. This blood is brought by means of the arterial and venous system within the influ-

ence of these forces, when they mutually commence moulding their respective organs, bone, muscle, nerve, etc., out of the few constituents entering into its composition, proving that the peculiarity is in the law, or how could the several different laws, make so many entirely different organs out of the same material.

The blood may be changed in various ways from this healthy standard. The lacteals are so organized and controlled as to be able to take up and throw into the circulation, various substances which are unnecessary for, and do not enter into the construction of an healthy organism, consequently there should be less difficulty,—in fact there is none—between this unnecessary material and the forces in the "physiological tissues," than between the latter and the necessary ingredients in the blood, or their force, so that the latter, by its superior affinity should according to the Homœopathic explanation entirely drive out and supersede the former.

This noxious element, be it miasmata or what not, is driven into the presence of these laws or vital force, when the effect is to depress some forces while others are excited to excessive action.

These laws are so constituted or vitalized as to be peculiarly influenced when certain drug forces, or any others, are forced upon them, or within the limits of their influence, or when one of the elements making up the tissue in which the force lives, is changed by the presence of a force acting chemically.

These forces being limited in their powers of endurance, may be depressed beyond the extent of that power, or excited to extinguishment. Then I say there is no "elective affinity" between the "disease producing agent" and the "physiological tissues," only when the agent acts chemically, 'tis forced upon them by surrounding circumstances over which they have no control. If then, the forces in the physiological tissues have no affinity for, but receive the disease producing agent under protest, (as seen by the pain, etc., it produces,) how can the Homœopathic explanation of the operation of their law, "similia, similibus, curantur" be true?

We conclude that they infer, that the drug force embodied in the remedial agent, is selected by the physiological tissue in preference to the disease producing agent—a kind of displacement, caused by the stronger affinity existing between the drug force and the force in the diseased tissue, than that which exists between the disease producing force, and the physiological tissues, consequently driving out the disease producing force. By this Homœopathic line of argument, they are led to assume, that two agents producing similar symptoms in an organ when brought within the influence of its laws—of attraction they say—separately, cannot produce their legitimate effects on the same tissues or forces at the same time conjointly. Is this true, that two forces acting similarly upon a physiological tissue when presented separately, when brought to bear conjointly, one will be selected to the exclusion of the other? I say no."

Suppose for example we combine three of the Hydragogue cathartics, ext. colocynth, ext. Jalaap and Gamboge. 'Tis known even to Homœopaths, (or ought to be,) that each of these drugs when given in certain quantities will produce copious watery stools. The drug force in the colocynth, acting on the force in the physiological tissues, produces this exhalation of watery fluid from the mucous membrane of the intestinal canal. A less dose will not produce this result. Exactly so is it with each of the other two drugs. Now suppose we combine the drugs, the quantity of each in the combination not being quite sufficient of itself to move the bowels when used alone. Does the force in the physiological tissue, select the one of the three drug forces, for which it has the strongest affinity, as the Homœopathic explanation of "similia similibus curantur" teaches? Certainly not. The drug forces are driven into the presence of the vital forces in the tissues, by the circulatory system, when each drug force produces its legitimate effect, and the result is a copious evacuation from the bowels. Is it not true then, and clear to the most obtuse comprehension, that two or more forces may, and in

fact do, operate upon the physiological tissue at the same time aiding each other as it did here, in bringing about a certain result, instead of one being attracted by the physiological force or "natural disease" for which it had, as they say the stronger affinity, to the exclusion of the other.

Suppose a man is brought in with a frozen foot. What was in this case the disease producing agent? Cold of course.—Was there any *elective affinity*, between the force in the tissues of the foot, and the disease producing agent? We say none. In what way did the cold act to bring about this result? Simply through the law of the equalization of temperature by extracting the amount of heat in the foot, which was essentially necessary for the support of its vital forces, hence they cease to act, and the tissues are handed over to the law of decomposition.

But suppose a certain amount of heat has been left, so that the vital forces have not been entirely extinguished. In this case, according to the homœpathic law, we should select a remedy which when used in "massive doses on a healthy person" or part, will produce similar symptoms, and in this case they instance friction with the snow, cold water, etc. This I grant is good practice when properly used. But how does it cure the partially frozen tissues? Is it because it produces when used in "massive doses" on a healthy part, similar symptoms? Nonsense. Is it because of the stronger affinity which Homœopathists say exist between the force in the remedial agent and the diseased tissue or "natural disease?" How ridiculously absurd the idea. How does regular scientific medicine explain its action as a remedy? There is as has been stated a law of the necessary heat in the parts. The idea then is to impart the smallest quantity of heat to these enfeebled tissues and depressed vital forces in order to stimulate them as gently as possible, increasing the stimulus as the forces and tissues are able to bear it. Otherwise the heat would overcome the cohesive power of the forces over the tissues, and destroy them. Friction with snow, gets up, or brings out a

certain amount of latent heat, but it will not do to continue this, we must next use cold water, and so graduate the amount of heat as to suit the condition of the parts. Soon nature will get up a reaction which may destroy the tissues by undue excitement, unless the excess is carried off by the proper means. 'Tis unnecessary to ask any reasonably intelligent, honest man, which is the more rational explanation of the modus operandi of the remedial agent.

Again. Suppose we apply a caustic substance to an organized tissue, what will be the immediate result? Chemical action. The caustic having a strong affinity for one or more of the elements entering into the composition of the tissue; overcomes the resistance of the vital force, which held the different elements together, and the result is the disorganization of the tissue. The disease producing agent in this case acts directly on the physiological tissue, and the destruction is complete or partial in proportion to the power of the caustic applied.

In the partial we find an enfeebled, depressed state of the forces in the tissues, caused by the limited chemical action of the caustic. This being the pathological condition of the parts, what are the therapeutical indications? "Similia similibus curantur" say they. Then they must use something which in "massive doses" will produce similar symptoms. Probably if I should advise a warm cataplasm to the part, they would say the heat in the cataplasm if applied in massive doses, would produce similar symptoms. But is that fact of itself any reason why it should cure the disease, or is it not merely a coincidence? The question to decide the matter is how does it cure or aid in bringing about, a healthy condition of the parts? Homœopathists say there is a stronger affinity existing between the "force in the remedial agent and the natural disease" than exists between the disease producing agent, and the physiological tissues. But in this case the disease producing agent has done its work and gone, leaving nothing but the effect, consequently we have their argument, or rather mere state-

ment reduced to this—that there is a strong affinity existing between the heat in the cataplasm and the "natural disease," the inference being that this affinity brings about a cure. We desire to know in what particular way does it accomplish this cure? And their only reply is, "because of its stronger affinity," etc. The view we take of the modus operandi of the practice is that the moisture and heat stimulates greatly the depressed vital action in the partially decomposed tissues, until they assume their healthy state of action, while at the same time stimulates and assists the law of disintegration, thereby bringing about a more speedy separation of the dead from the living tissues.

One more example and we are done.

Suppose a Homœopathist is called in to see a patient laboring under the following symptoms: intense burning pain in the stomach, with violent irritation of the alimentary tube, purging and vomiting, corrosion of the mouth, tongue, etc.—Bloody evacuations from both stomach and bowels. He turns over to himself his supposed fixed law, "similia similibus curantur," and says, I must administer something which in massive doses on a healthy person will produce similar symptoms. God only knows what potency or dilution he might use if he confined himself closely to his own theory, in which case we feel assured of the fate of his victimized patient.—Having made up his mind what to give, some one suddenly informs the Homœopathic professor that the cause of the patient's sickness was a poisonous dose of corrosive sublimate (Hyo. Chlo. Corros.) Ah, "he exclaims," and what think you Mr. President becomes of his boasted theory and "fixed law." If he is not an ignoramus, it gives way to "massive doses," (not infinitesimal) of albumen—emesis having previously been assisted by the proper drugs or means—not because Albumen in the shape of white of eggs, will even produce similar symptoms under any circumstances, but because it has a strong affinity for the disease producing agent," converting the latter into a harmless compound. In this case where is

their boasted affinity between the force in the albumen (remedial agent) and the "natural disease." Why would he administer sweet milk, flour, etc.? Whoever heard of their producing similar symptoms? On the contrary we desire to neutralize the cause and soothe the irritable mucus membrane of the bowels and stomach? Why do we give Hydrated proto-Sulphuret of Iron? Is it because its force has a strong affinity for the "natural disease," or is it not because of its strong affinity for the disease producing agent forming with it a harmless compound. Which is the more rational view of the modus operandi of the remedy in this case?

Would that all those who pretend to practice regular scientific medicine, were actuated by firmly benevolent motives, then would they investigate the science out of a desire to know and be able to vindicate its excellence. Alas too many are willing to go forth to the world with but a faint idea of scientific medicine. Just knowledge enough to enable them to benefit themselves pecuniarily. This is the same spirit which actuates the Quack in getting up his new nostrum—in fact it is quackery, and from this class all the isms in medicine spring—also the visionary man of one idea who would have us all believe that a wet sheet is a panacea for every ill. All of us who love regular scientific medicine on account of the blessings it confers upon suffering humanity, should cling to it with jealous care and affection, that even some of its professed friends as well as its most bitter enemies shall not stab it in the dark. Let the midnight watch tell of our devotion to its truths, and our desire to know more of them, and God forbid that that watch or any other, should ever find us concocting some new theory through which we might draw in the visionary and unsuspecting for the mere purpose of gain.

Bloomington, Ill., July 8th, 1861.

From Minutes.—On motion of Dr. S. Noble, a vote of thanks was tendered Dr. Parke for his contribution and a copy asked for publication in the Chicago Medical Journal.

The Great Philanthropist Sylvester Lind.—Most of our readers may have heard of the Lind University and the great medical reform department established by Mr. Lind with worthy co-operators. The following extracts from the Chicago *Daily Tribnne* of Thursday, June 27, 1861, exhibits a few only of the facts which the public ought to know, concerning the source of the funds with which Mr. Lind may have been able to reform and convert the world medical and non-medical: "It is only a matter of common fairness to state that the diversion and misappropriations (of the city funds) are laid solely to the act of its Treasurer, Sylvester Lind." "It is not a pleasant reflection that a man who could endow a sectarian institution of learning to the amount of $100,000, should by his official misconduct cause the indefinite suspension of our public schools."

The amount of funds in the hands of the Board of Sewerage of the city of Chicago, according to the report of the City Controller, S. D. Ward, Esq., published in the *Tribune* of the same date, is $158,215.12.

If any one wishes to know where the balance of the fund to establish the "Lind University," after deducting the loss on the above, might come from, let him enquire about the streets, as we are not disposed to go beyond the statement of the *Tribune*, which has heretofore belonged to the same political party with "Brother Johnny," and cannot be suspected of a disposition to exaggerate.

Dr. Douglas' Case of Spina Bifida.—A subsequent number of the *Pacific Journal* states that the case mentioned on pages 394 and 395 of this journal resulted in a perfect cure without further difficulty.

SELECTED.

HEMORRHAGE FROM GUN-SHOT WOUNDS.

In the last number of the *Press* we gave the case of a gun-
ıot wound of a lad, æt. 14, in whom portions of the entire
ıbclavian artery and vein were shot away, and yet no hem-
rrhage occurred worth mentioning. Recently, however, we
ad a case in which death occurred from internal hemorrhage,
ı consequence of a gun-shot wound, involving some of the
ranches of the superior mesenteric artery.

Why the difference in the two cases? In the first, the vessel
as of immense size and near the heart, while in the latter,
ıe vessels were small and remote from the center of the
rculation.

Gun-shot wounds are not, for the most part, followed by
ıuch hemorrhage, but an exception to this occurs in wounds
.volving the abdominal cavity. In gun-shot wounds of the
xterior portions of the body, the surrouuding lacerated tissues
ften embrace, closely, the ends of the torn artery, and there-
y prevent hemorrhage. which does not occur in wounds of
ıe mesenteric arteries and their branches. Again, a gun-shot
ound involving a vessel belonging to the external parts of
ıe body, will, at once, admit the atmosphere, which, being of
much lower temperature, produces contraction of the ends
the vessels, but which cannot often occur in a gun-shot
ound involving the vessels of the abdominal cavity.

In the case above mentioned, involving some of the branches
the superior mesenteric artery, death occurred from hemor-
ıage, at the end of twenty-four hours after the injury was
:eived. The ball—that of a small pistol—entered the ab-
ɔminal cavity, midway between the umbilicus and the ante-
ɔr superior spinous process of the ilium, on the right side,
dged in the left side of the second lumber vertebræ, from
ıe top, taking, in its course, several of the largest branches
the superior mesenteric artery. The blood was evidently
scharged from these slowly, as death did not occur for
venty-four hours. The internal hemorrhage was, however,
ɔnsiderably impeded, in consequence of the tightness of a
ındage applied around the body, all over the abdomen, which

compressed all the abdominal viscera into the smallest compass of which they were capable by this means. This tight bandage was used for the triple purposes of pressing the surrounding parts against the orifices of any communications with the alimentary canal that might have been made by the passage of the ball, and thereby preventing the egress of any of its contents; of preventing hemorrhage, as far as possible, upon the same principles; and, lastly, for the purpose of having the well-known beneficial effects of a tight bandage upon injured parts, to approximate the wounded surfaces and keep them at rest, in order to promote the healing process.

In a post mortem examination of this case, the abdominal cavity was found filled with blood to its utmost capacity, consistent with the tightness of the external pressure. A large coagulam—as large as a man's two fists—was found under the ribs, on the left side, pressing the diaphragm upwards, and considerably out of its natural place. The pelvic cavity was also filled with blood, and clots were found in every recess of the abdominal cavity not influenced by external pressure.—*San Francisco Med. Press.*

SPINA BIFIDA.

Dr. Douglas, of this city, injected a spina-bifida with solution of iodine, on a male infant seven weeks old. The plan adopted was that proposed and used by Prof. Brainard, of Chicago.

The lesion in this case is lumbo-sacral, and nearly three inches in diameter; its complications are paralysis and hydrocephalus. The child had thirteen convulsions within the four weeks preceding the operative measure, which was first practiced on the fourth of March. No convulsion or other unpleasant symptom followed the use of the injection.

Up to the 11th of March there were some improvements in the intensity of the symptoms which had previously existed. The tumor had now again refilled, and the protuberance of the anterior fontanelle was as great as before; the clonic spasm still persisted, and the extra pronation of the hands was little if any better. The infant had no convulsions after the first injection until this date. The tumor had now assumed its former dimensions.

The attending physician (Dr. Douglas) determined to perform the second operation on this date; (seven days elapsing from the first;) before injecting the tumor, moderate pressure upon it brought on a violent convulsion which lasted four or five minutes. It was now treated as before, and as soon as the tumor at the fontanelle showed signs of subsidence, the iodine injection was thrown into the lumbo-sacral sac. No unpleasant effects followed its immediate use.

From that period up to this date, March 25th, there has been a general and marked improvement in all the abnormal symptoms of the case. The extra pronation of the hands has ceased, the strabismus has disappeared, the cephalic region has not again been invaded with the excess of cerebro-spinal fluid, and the lumbo-sacral tumor is gradually diminishing in all its amplitudes. The head hangs more natural and erect, the tendency of falling back being unobserved except when the infant sleeps. The persistent tendency to clonic spasm still remains, and there is little if any amendment in the paralysis of the lower extremities.

The progress of the case thus far is satisfactory, and much better than to let them die without an effort to save. If Dr. Douglas saves (this very unpromising case in the beginning) his case, he will have accomplished what some of our best surgeons have failed in, and it will be the first successful case treated on this coast, and, under its present features, he has fair grounds of hope. We congratulate him on his success thus far. We shall watch this case with interest, and report its progress hereafter.—*Pacific Journal.*

Remarks.—The above case is interesting as furnishing additional proof of the safety of iodine injections. The details of the method employed are not given. At present I should close the opening into the spine, if possible, by pressing the sac into it as the fluid escaped; inject the sac with a stronger solution than would be proper where it is allowed to pass into the spinal canal and wash it out with distilled water or the fluid from the tumor. The complications in this case are such as to indicate malformation or extensive disease of the nervous centers and render the case unfavorable, as the cure of the spina-bifida can hardly be expected to remove the disease.

[B.]

ON URÆMIA.

By PROF. JAKSCH.

Vierteljahrschrift fur die praktische Heilkund. xvii. Jahrgang., 1860.

The author of this paper holds that there are two varieties of uræmia which should be carefully distinguished; one being caused by the decomposition of urine and absorption of carbonate of ammonia into the blood (ammonæmia), the other being the variety which accompanies Bright's disease of the kidneys. He has seen the former occur under the following circumstances:

1. In torpor and paralysis of the bladder.
2. In dilatation of the pelvis and calices of the kidney in consequence of ureters being blocked up.
3. In renal abscess, renal tuberculosis and saculated kidneys.

The following are the main differences characterizing the two forms of uræmir; we shall, to save circumlocution, use the word ammonæmia as the name of the one, and Bright's uræmia as the name of the other:

1. In advanced ammonaemia the urine discharged from the bladder manifests a strong ammoniacal odor, which Prof. Jaksch has never noticed in any stage of Bright's uraemia.
2. Dropsical symptoms, either acute and febrile, or chronic and afebrile, have not been observed in ammonaemia.
3. Advanced ammonaemia is characterized by persistent dryness of the mucous membrane covering the mouth and fauces, as if every particle of moisture has been removed by blotting-paper; the membrane looks dry and shining, and the dryness even extends to the mucous membrane of the nose, the conjunctiva, and even to the chordae vocales; these symptoms do not occur in Bright's uraemia.
4. The distinctly ammonaical odor of the air exhaled, and of the cutaneous secretions of patients affected with ammonæmia, does not occur in Bright's disease.
5. Patients suffering from ammonaemia always show a marked dislike to meat, and especially brown meats, even if their affections have not advanced very far; a feature rarely seen in the other variety.

6. Prof. Jaksch has never observed in Bright's disease the violent intermittent rigors, stimulating intermittent fever, which occur in ammonaemia.

7. In none of the cases of ammonaemia were convulsive or epileptiform attacks, nor croupy or diphtheretic exudations noticed.

8. Disturbed vision, as produced in Bright's disease by exudation on the retina, does not appear to take place in ammonaemia.

9. Chronic ammonaemia is characterized by a uniformly pale and sallow complexion, and by gradually increasing emaciation; very acute and advanced ammonaemia is associated with very rapid wasting of features, and muscular debility amounting to paralysis.

10. In all cases of ammonaemia which ran a rapid course there was vomiting, with concurrent or consequent diarrhœa; in chronic ammonaemia both phenomena were often entirely absent, or only occurred temporarily.

11. In ammonaemia, whether acute or chronic, Professor Jaksch has always seen death occur after sopor, varying in duration from several hours to several days.

The author of this valuable and interesting paper gives numerous cases illustrative of his views, and enters very fully into the various questions connected with diagnosis and treatment, for which we are unable to make room.—*South. Med. and Surgical Journal.*

PUS CORPUSCLES IN THE AIR!

AN AEROSCOPIC STUDY BY DOCENT DR. THEOPH. EISLET IN PRAG.

Translated for the Boston Medical and Surgical Journal, from the Wochenblatt der Zeitschrift der k. k. Gesellschaft der Acrzte in Wein, March 26, 1861, by J. C. White, M. D.

During an epidemic of conjunctival blennorrhœa, which prevailed a short time ago in the Orphan Asylum at Repy, 8 miles distant from Prague, I had opportunity to learn by experience that infection may take place in other ways than by contact. Reserving for future description the particulars of this interesting epidemic, it will be sufficient for my present purpose to show its intensity by a few numerical data. Such

foundlings as are given up by their foster-parents are brought to the large and newly-built institution at Repy. Among these 250 foundlings, of whom the majority are between the ages of 6 and 10, there occurred in 1860 from November to December forty-six, and in the period between the 16th and 21st of February, 1861, also forty-six cases of acute conjunctival blennorrhœa. His Excellency, the Governor of Bohemia, Count Forgach, presided personally on the 19th of February at a Council in Repy, at which Prof. Ritter von Hasner, Landesmedizinalrathsubstitut Dr. Hoser, Dr. Biermann, Director of the Hospital, and myself as house-physician, were present, and ordered the perfectly healthy children to be left at Repy, but the diseased and infected to be removed with the greatest haste from the institution. Forty-six children were found unaffected, while the newly attacked and those which exhibited merely an injection of the conjunctiva or papillary structure of the membrane without suppuration, were brought to Prague, and distributed in eight different localities. In the latter place, four-fifths, and in Repy, all of the children, were under my care.

It will readily be believed that as a physician I took the greatest precaution to protect myself against infection. I was particularly careful not to touch my own eyes. The cleansing of those of the patients was entrusted to the Sisters of Charity and most punctiliously performed. No chance of contagion from this source was possible, therefore, nor did any scattering of pus take place either by the patients sneezing or coughing during their examination. I was in the habit of going to the Asylum at Repy daily, where I first examined the healthy inmates, then touched the lighter cases of the disease with cuprum, and visited the worst last of all. Whenever I had spent a few hours in the wards, I was sure to feel a sensation of burning and pressure in the eyes, without being able to observe anything upon the conjunctivæ except streaks of injection on the edges of the lids. In the course of a few hours this unpleasant feeling disappeared of itself.—When the patients were brought to Prague and I visited them daily, this sensation of pain remained constant, the caruncles became red as well as the whole conjunctiva palpebrarum, and the semilunar fold became livid and so œdematous that the movements of the globe were impaired, accompanied by a mucous secretion, so that the lids adhered in the morning. In other words, I was infected without having become so by contact. The same happened without exception to all the nurses.

Of seven of the nuns severely affected, two had caught the disease by the spattering back of the water while cleaning the eyes, two from the dissemination of pus by the sneezing and coughing of the children during the same process, one by washing the bandages, and two in some inexplicable manner. The infection in my own case only needed more unfavorable circumstances to become converted into an acute affection;—as it was, however, application of weak solutions of nitrate of silver caused it to diminish in intensity.

Here, then, we have the fact that a person may be attacked by an acute conjunctival blennorrhœa without purulent contact in the ordinary sense; there is wanting only the explanation—how is this possible?

Pouchet, who for many years has been engaged in the microscopic analysis of the air, describes, in the *Compt. Rendus* April, 1860, an apparatus which he calls an aëroscope.—Through the kindness of our respected Prof. Purkyne a similar contrivance was prepared here. It depends upon the plan of driving a certain quantity of air across a glass plate moistened with glycerine, upon which the particles of dust and microscopic forms remain fixed, and may be thus readily examined by the microscope. The apparatus consists of a hydrostatic aspirator and two glass tubes, of which the first terminates at its upper extremity in a small funnel, the infundibuliform opening being directed upwards, while the lower is drawn out into a point of 0.50 of a millimetre in diameter. The second tube is ground into the first, and its upper opening is covered with a fine metallic sieve, upon which the glass plate is fastened. This plate is brought to within one millimetre's distance from the lower funnel-shaped opening by pushing in the tube, and the lower end of tube No. 2 is hermetically united to the aspirator, which is filled with water. The latter is merely a vessel made of zinc plate, two feet high and one foot square at its base, having at the bottom a stop-cock, and in the cover a mouthpiece for connection with the glass tube. If now the water be allowed to flow from the aspirator through the stop-cock, the same bulk of air will stream in through the funnel, and the matter suspended in it will remain sticking to the glass plate.

This aëroscope, as modified by Prof. Purkyne, was placed between the beds of two patients in a ward in which were thirty-three boys with acute conjunctival blennorrhœa accompanied by great secretions of pus and the air was drawn thro' it. It must, moreover, be stated that the eyes were washed

by means of glass syringes with warm water, and that from this room alone several pails of waste water were thrown away daily, presenting a milky appearance from the pus it contained. The experiment was made at 10 A. M., after the apartment had been ventillated, and pus corpuscles were detected in the atmosphere by the very first transmission through the apparatus.

In this fact lies the explanation of the attacks above described, in which cases direct contact with the patients and the blennorhagic secretion was excluded. Infection took place by means of pus corpuscles suspended in the atmosphere.

In presenting this short but significant communication of our respected colleague and friend to the knowledge of our readers, we cannot forbear adding a few words, prompted by the importance of the subject, and with the more reason, that Dr. Eiselt has far too modestly disdained to surround the announcement of his discovery with that display, which, in science as well as in other fields of human knowledge, appears necessary to procure for a new fact its merited consideration and recognition.

The great significance of this discovery to pathology in general, and to the study of contagion in particular, and the immense importance of this fact, when more thoroughly studied and corroborated, in connection with the care of the sick and the erection of hospitals, need not be further impressed upon the physician. A new sphere of objective information is thus promisingly revealed, a new and hitherto all untrodden path opened, which, whether its results be negative or positive, will at all events lead to the advancement of science. * * * * * * * * * *

We are able to say that in consideration of the high importance of this subject, many members of our society have united to give it a thorough investigation, and we shall not fail to keep our readers constantly acquainted with the progress of these examinations, which, from the abundance of suitable material afforded by Vienna, and from the combination and systematic employment of so many forces, promises a speedy and conclusive result.—*The Editors of Wochenblatt.*

ON ATMOSPHERIC CORPUSCLES.

By F. M. POUCHET.

I have thought for a long time that the study of the bodies conveyed by the air into the respiratory passages of animals would offer interesting physiological results, and throw considerable light upon the subject of atmospheric micrography. Nor have I been deceived in this. In fact, in almost every class of animals, the examination of the respiratory apparatus clearly reveals the various modifications of the medium inhabited by them. But it seemed to me that the most important notions on this subject would be presented in those animals in which the air penetrates most deeply into the organism. Birds, consequently, have become the objects of particular attention, seeing that in them air, after traversing the lungs, pervades not only the different cavities of the trunk, but reaches also the interior of the esseous system. In these animals I have devoted particular attention to the examination of the bones which contain most air, and chiefly to the *humerus*. And as in these situations the corpuscles, once introduced, escape only with great difficulty, owing to the immobility of the walls and the irregularities of their anfractuosities, we there find ample vestiges of all the matters conveyed by the air into the respiratory organs.

The examination of animals living in midst of towns, and in the interior of our dwellings, will excite surprise by the enormous quantity of starch-grains contained in their respiratory organs. In birds, corpuscles of this nature will be discovered in great abundance, even in the interior of the bones, and together with them will be observed, in profusion, particles of sooty matter, and filaments derived from the various fabrics of which our clothes are made. But the further the creature lives from towns, the more remote and wild its habitation, the more rare also become all these corpuscles in the inspired air. Under these circumstances, scarcely any traces of the sort can be observed, Frequently even not a single particle of the kind in question will be observed in animals or birds living altogether in the midst of forests; in these animals, on the other hand, the whole respiratory apparatus is filled with abundant *debris* of plants,—epidermis, chlorophyll, etc.

The amylaceous particles disseminated either in the atmosphere or in the interior of animals present two conditions—they are either of the normal state or cooked. In the majority of cases, the starch is found in the former condition; but, nevertheless, we meet in the atmosphere, and in all the cavities of animals, into which the air enters, with starch-grains either simply swelled or entirely burst, by the action of heat. The latter certainly proceed only from minute particles of bread carried about by the movements of the atmosphere.—The panified starch is readily recognized by its enormous size and ruptured condition, and by the action of Iodine, which does not produce in it the same bright color as it does in ordinary starch-grains.

The birds which inhabit the interior or live in the close vicinity of towns do not obtain this abundance of amylaceous particles simply from the air they inspire; they derive, besides this source, an abundant supply from the foliage of the trees amidst which they pass part of their lives. In fact, on examining the surface of the leaves of trees in the neighborhood of cities, when they have not been washed for some days by rain, abundance of specimens of every sort of corpuscles carried in the atmosphere will be found on them, and, universally, a considerable quantity of starch-grains, together with sooty and silicious particles. On a single leaf of a horse-chestnut growing in the garden of Ecole de Medecine at Rouen, I have counted about thirty grains of wheat-starch either in the natural or panified condition.

The search for atmospheric corpuscles, in the respiratory passages is easily made. It consists simply in the passing of a stream of water through these passages, and the collection and examination of the fluid. For this purpose I inject the trachea, by means of a syringe, and when the lungs are distended with water, make incisions into them, and carefully collect all the fluid that escapes, repeating the injection several times.

In birds, I inject the trachea, and when the water has traversed the lungs and filled all the air cavities of the body, I open the thoracic cavity, and collect the liquid which escapes in a jet. In all the experiments the fluid is received in conical vessels with a narrow bottom, and when sufficient time has elapsed to allow all the corpuscles to subside, these are removed by means of a very slender pipette, and submitted to microscopic examination. The atmospheric corpuscles may be collected from the hollow bones by the same mode of proced

ure. To effect this, I insert the tube of a syringe into the orifice by which the air penetrates into the cavity, and then make a section of the bone at the opposite end. The water injected, at first gently and afterwards with great force, in order to carry along with it the smallest corpuscles, is received in champagne-glasses and examined. Studied in this way, the respiratory organs afford a faithful idea of the life of the animals. Not only does the examination reveal to us what sites of habitation the animals prefer, and their kind of food, but even, when they are domesticated, the profession followed by their owners.

I have found in the air-passages of man the same atmospheric corpuscles as are met with in animals. In the bodies of two persons, who died in one of our hospitals, a man and a woman, whose lungs I injected, I found a large quantity of wheat-starch, either normal or panified; particles of silex and of glass; fragments of dye wood of a beautiful red color;—fragments of dress, lastly a larva of a microscopic arachnidean, still living.

It was rational to conclude that, at certain times, the expectoration should contain corpuscles, similar to those I have described in the lungs. And this is actually the case; I have here met with normal and panified starch-grains, particles of soot, the debris of plants, filaments of wool or cotton of various colors, particles of silex, etc.

A fowl, brought up in a paved court at Rouen, afforded in its respiratory sacculi an enormous quantity of wheat-starch, normal and panified. Besides which they contained numerous filaments of cotton and linen, and an abundance of sooty particles: there were but very few siliceous grains, a circumstance probably owing to the habitation in which the bird had existed. The humerus of this bird also contained much starch, particles of soot, a considerable number of cotton and linen filaments, and even some grains of potato-starch and of glass.

Thinking that in animals, in localities where starchy matters formed an object of trade, the abundance of amylaceous particles would be still greater, I procured two young chickens which had been kept for two months by a baker. My surmise was not unfounded. The whole of the respiratory organs in these chickens, notwithstanding their youth, contained an amount of starch surpassing that which I had found in the fowl.

A pigeon taken from a dovecote in the middle of the town

presented, in its respiratory passages, besides particles of silex and soot, the debris of stuffs of various colors, and grains of potato-starch, together with considerable amount of wheat-starch of all sizes, and above all, an enormous quantity of lentil-starch. Even the *humeri* contained so much of the latter that from eight to ten grains were found in every case. I was unable to explain the presence of such an abundance of lentil-starch in a bird which always swallows seed without bruising it. But I very soon discovered the source on examining the floor of the dovecote. This was completely covered with the dung of the pigeons, containing an enormous quantity of this sort of starch, which had passed through the intestines unaltered. In flying about in their dwelling the birds diffused this in the air, and it thus gained an entrance into their respiratory organs.

The examination of a bird which is ordinarily kept only in wealthy establishments, affords another proof of what has been said. In fact, the numerous vestiges of magnificent stuffs exhibited in its respiratory organs manifestly recalled the luxurious dresses or works of those amongst whom it had lived. This bird was a peacock. Unfortunately I had at my disposal only its humeri; but having injected them, I was really struck with the abundance of, and the splendid colors presented by, all the fragments of stuffs contained in these bones. I found besides a considerable quantity of wheat-starch, numerous filaments of wool and of silk of the most magnificent blue, of a beautiful rose, and bright green.

The lungs of a mouse also afforded starch, silex and soot, but in far less quantity and in far smaller fragments, than in birds.

But if our attention is directed to wild birds, residing at a distance from cities, we observe a totally different thing.

A grey falcon (*Falco cinereus*, Mont.) killed in a large forest two leagues from any habitation, did not afford the least trace of starch, either in its air passages or within the bones. There were met with only a few particles of soot and silex;—and not a single filament of any kind of tissue was recognized. But, on the contrary, all the air-passages were filled with an abundance of the detritus of plants and debris of insects.

In another wild bird (Picus viridis, Linn.) I found in the air-passages only an insignificant quantity of starch, and very little soot and silex.

In some frogs taken in the basins of the Jardin des Plantes, at Rouen, which is situated close to numerous factories, and in

a populous quarter, the lungs have always afforded a notable quantity of starch, an abundance of particles of charcoal and coal-soot, together with numerous fragments of silex and vegetable debris. Besides these, filaments of cotton, raw or manufactured, were extremely abundant. The respiratory organs of these animals also contained Naviculæ, diatoms, papilionaceous scales, the stems of mucedinous fungi, and fragments of confervæ.

If, again, we explore the respiratory passages of some animals, which, although living in a state of liberty, are in the habit of frequenting our dwellings, we find in them evident vestiges of their double existence, wild and domestic.

A jackdaw afforded a striking instance of this. Its respiratory organs contained a very considerable quantity of wheat-starch; what was very remarkable, an enormous number of sooty particles—a circumstance which is accounted for by the almost habitual abode of this bird on the lofty buildings of towns. There were found also in its air-sacs, numerous filaments of cotton and abundant debris of plants.

In all my observations, which, without exaggeration, might be counted by hundreds, I have never met with either a single spore or a single ovum of a microzoon, nor with any encysted animalcule. Moreover, in all these minute researches I have always been able to detect starch-grains wherever they existed. Is it possible that the atmospheric spores and ova alone should have escaped detection? The ova of certain Paramœcia, being .0420 mm. in diameter, and consequently surpassing considerably in bulk the largest grains of wheat-starch, whose diameter does not exceed .0336 mm., if they really existed in the atmosphere in sufficient quantity to explain the generation of Infusoria, whose apparition astonishes and stupefies us, should have been immediately discovered in the same situations, and far more easily even than the starch-grains, seeing that they ought to exist in much greater numbers. To a negation of this kind, in the actual state of science, but one answer is possible—*show these ova.*—*Comptes Rendus*, 1, 1860.—*Quarterly Journal of Microscopical Science.*

EXTRACT FROM THE SANITARY REPORT TO THE SURGEON GENERAL.

By Surgeon C. S. TRIPLER, M. D., U. S. A.

For the quarter ending Dec. 31, 1860.

Among the recruits (four hundred in number at present, several large detachments having been sent off,) we have had more cases of venereal disease than usual—eleven of gonorrhœa and eight of chancre—most of them aggravated cases. All these men have been returned to duty or are convalescent.

The gonorrhœa has yielded to strict confinement to bed; saline purgatives in the first instance; the local use of cold water; injections of cerate of zinc, subnirate of bismuth, perchloride and persulphate of iron. In a few cases the balsam of copavia has been used. I am very much disposed to think the more I see of these cases, the principles of treatment do not differ from those of any other inflammation of a mucous membrane, though they may be admitted to be due to a specific cause; that rest throughout, local depletion, sedation and evaporants in the early stages, and such local applications as are known to restrain undue secretions from the mucous membranes in the subsequent stages, will be found all-sufficient in the great majority of cases. Sometimes, I admit, I have been compelled to resort to a mercurial alterative, from the obstinacy of the cases. It is possible a chancre may have existed in the uthera in these instances—I do not know the fact; I do not know, however, that no secondary symptoms have occurred in any of these cases while they have remained under my observation. The mercurial I employ for this form, is the bichloride, in doses of 1-16 to 1-8 grain three times a day. I have been pleased with the local use of the subnitrate of bismuth in a number of cases in the course of the last year. I think, however, that the preparations of iron I have indicated have been generally more satisfactory in their effects.—An alternation of these agents at the proper stage, but always combined with rest, I am persuaded, will seldom fail in effecting a permanent cure in from seven to fourteen days.

The cases of primary syphilis have been generally quite obstinate, but neither presenting unusual symptoms, nor calling

for unusual medication. In three cases I have been obliged to perform circumcision for phymosis in order to expose concealed chancres. I may remark upon this operation, that, in performing it, I prefer to pass a director under the prepuce upon the dorsal median line and while an assistant draws the skin well back, to penetrate the integument with a sharp pointed bistoury and incise it. If the mucous membrane still protrudes when the skin is relaxed, I pass the director under it a second time and incise with the bistoury as before to the apex of the re-entering angle of the divided skin. Then with the scissors cut off the prepuce symmetrically on either side of the frenum to the extent desired. In this way, I think, we have less trouble with the mucous membrane than in the methods of either Ricord or Vidal.

During a part of the months of November and December we had a limited invasion of epidemic catarrh. It began on the 18th of Nov. and ceased 16th Dec.—just four weeks.—These patients were seized with chills, sometimes severe and protracted; engorgement of the mucous lining of the frontal sinuses, nares, pharynx, larynx, trachea and sometimes the bronchial tubes—fever for a few days and a rather obstinate cough. The treatment consisted of saline cathartics, antimonials, extract of wild cherry, or cyanide of potasium in combination with tincture of tolu and syrup of acacia, and demulcent drinks. The affection yields very readily.

We have had eleven cases of pneumonia thus far, this season—all of them severe, but fortunately none fatal. One of them was complicated with articular rheumatism.

These cases include what might be distinguished into capillary bronchitis, pleuro-pneumonia, bilious pneumonia, etc.—The existence of the disease was verified in every instance, both by the physical and rational signs. Sixteen days was the shortest period any of them remained upon the sick report; thirty to forty days have been usually required to re-establish strength sufficient to enable the men to return to duty without incurring too much risk of a relapse. I have treated, since I have been in charge of this hospital, nearly forty cases of this disease and have lost none. I have been informed by several of my friends that it has prevailed a great deal in this section of the country and has been very fatal. In referring to the records of this hospital, I find one hundred and twenty cases registered in five years, beginning in the autumn of 1847. But among these I find thirty-three cases which were returned to duty in from one to three days, and two more which were

discharged in four days. These cases could scarcely have been pneumonia. Deducting them we have eighty-five still left—a very large number. Among these there are five deaths recorded, which gives a mortality of one in seventeen—only about one-third the mortality in civil hospitals. I do not know the exact system of treatment adopted in those cases. Blood-letting was sometimes used; cups occasionally but rarely; antimony the same.

Among my cases venesection was resorted to but once—the first case—and that without my authority. It was practised by my hospital sergeant, a very discreet and intelligent man, in the night, when the man was brought in, because he thought it a case of emergency, and he had seen it practised in such cases by my predecessor.

The mortality under my treatment has been zero; it cannot, therefore, be compared with any other table. I suppose a death must occur in the course of time, and then we can get a ratio less than infinity. As it stands, this mortality is less than any other reported. The fact is interesting in relation to the blood-letting controversy that has agitated the medical world since Prof. Bennett's novel views have been published. Without assenting to those views in mass, I admit that my experience in pneumonia at this point, one of its favorite localities, goes to confirm Professor Bennett's opinion as to the fact that general bleeding is unnecessary in this disease.—But, it will show at the same time, that neither is stimulation necessary.

My plan of treatment (I confine myself now to the thoracic difficulty—if other conditions exist, such as constipation, etc., they demand their own remedies) has been to confine the patient to bed until he is decidedly convalescent. I have seen more than one fatal relapse in the course of my life provoked by the patient's rising from bed when the disease was checked but not cured. Then wet cups at the seat of the disease as indicated by percussion and auscultation; and these repeated, following up the local lesion as it extends in the same lung or as it is propagated to the other. I have cupped a patient in this way two or three times a day for three or four days in succession. Dry cups have been frequently used during and after the same time. For constitutional treatment I have, until this winter, relied almost exclusively upon the tartrate of antimony—$\frac{1}{8}$ to $\frac{1}{2}$ a grain, as tolerance is established, every two hours, one hour, half-hour, as it can be borne. This winter I have used freely Norwood's tr. verat. virid. and with great

ıave been entertained with food that rendered their summons o mess more to be dreaded than an order to prepare for ›attle.

With such a class of officers to commence the work of ›rganizing this immense army, it is not strange that many of he most important positions have been filled by men wholly ınfit for the stations to which they have attained. At every ›lace of rendezvous this fact is apparent on the most superfi- ial examination, and at length it has been exhibited on the ield of conflict. If these fatal errors in our army organiza- ion are not remedied in time, disasters will be multiplied, and ıltimate defeat is not an improbability. But it augurs well or the intelligence of our people, and the final success of our Government, that these defects are already noticed, and are ·liciting the watchword of reform—THE RIGHT MAN FOR THE IGHT PLACE!

The pertinent inquiry will arise in the mind of every ›atriotic physician, who has also the honor of his profession ıt heart—Is the medical profession of the loyal States proper- y represented in this great uprising of the people for the naintenance of our national Government? The simple truth s, the medical profession has as yet not a proper representa- ion or influence in this movement. Medical men wholly ınqualified for their positions have, unfortunately, too often been already installed in important offices, from which ema- nate other appointments of the same low grade of qualifica- tion. In one State the question was asked by a leading paper, Who is our Surgeon-General? He was at length found, and proved to be a quack! It is not doubtful what will be the character of his subordinate officers. In another State, a surgeon, the brightest ornament of his profession, and who has a national reputation as an author, desiring to contribute his part to the good cause, early applied to the Surgeon-General of the State where he resided for the position of Medical Inspector at one of the rendezvous. He was, how- ever, informed, by a communication from the Surgeon-General, that *no such office existed.* A few days after, the official bulle- tin announced the appointment, as MEDICAL INSPECTOR, at the very same rendezvous, and by the same Surgean-General, of a man of universally acknowledged incompetency. This fact has since been proved by the re-inspection ordered by the military authorities at Washington, of the troops which he had passed, and the discharge of large numbers as unfit for service.

The State Boards of Medical Examiners have proved, in many instances, either negligent, or culpably ignorant of their duties. We may estimate by hundreds the numbers of unqualified persons who have received the endorsement of these bodies, as capable Surgeons and Assisstant-Surgeons to regiments. Indeed, these examinations have in some cases been so conducted as to prove the merest farce. Irregular practitioners, "retired physicians," disabled "political doctors," physicians unable to obtain a livelihood in civil practice from sheer incapacity, have emerged from the "Green Room" full-fledged Army Surgeons. The result of this official ignorance is now apparent; the Secretary of War has recently called the attention of the Surgeon-General of the United States to the reported incapacity of regimental surgeons of the volunteer forces at Washington, and directed a re-examination, with a view to the dismissal of those found incompetent.

In the present number will be found the Plan of Organization of the Sanitary Commission, with the names of the members. A more important commission never was organized in this country, and it reflects most creditably upon the intelligence of our highest authorities, and their disinterested zeal in behalf of the welfare of our citizen soldiers. The investigations which this commission proposes to pursue, and the defects which it will aim to remedy, are of vital interest to the army, and involve, to a certain extent, the final issue of the struggle. The medical profession have a deep interest in the success of this commission, for it is in its incipiency, its duties, and its construction, a medical commission. It is, we believe, the first instance in which our Government has recognised a body as advisory in matters of a sanitary and purely medical character, independently of the medical department of the army. Our profession would gladly see this organization a permanent one. But its success depends upon the efficiency of the individual members of the commission. Distinguished as are the members of this body, and competent as they are to cope with the responsible duties which they have patriotically assumed, the medical profession will regret, that the chivalrous State of Rhode Island could not have been represented by her distinguished Sanitarian, Dr. Edwin M. Snow; that New York could not add to its councils the knowledge of its wisest public Hygienist, Dr. John H. Griscom; and that Pennsylvania could not contribute the ripe experience of its practical Health Officer, Dr. Wilson Jewell. The names of many other gentlemen suggest themselves,

whose life-long studies have eminently fitted them for the researches of this commission.

But we forbear to pursue this subject further. We have made these remarks in no captious or fault-finding spirit, but with a strong desire to see errors corrected, and evils removed, which if allowed will in the end prove dangerous if not disastrous. Especially do we desire to see the medical department of the volunteer army elevated above the low level of partisanship and favoritism. We trust that the re-examination of the regimental surgeons at the Seat of Government will be rigid, and that the service will be thoroughly sifted of its unqualified medical officers. Let the popular feeling, which demands that incompetent commissioned officers of the line shall retire, or fall back into the ranks, be extended to the medical department, in all its branches, whether State or National. Let the motto of both Government and people in this struggle be :—THE RIGHT MAN FOR THE RIGHT PLACE ! !

USE OF CATHARTICS.—DR. WARE'S LECTURES.

That the alimentary canal should be well evacuated at the beginning of any considerable disease, was stated at the beginning of this lecture. A good many questions arise, however, in connection with this point, which require further remark, particularly the connection with the matters evacuated may have had with the causation of the disease. When undigested food, or food become acid, copious fæces, especially of bad appearance, bile and secretions are discharged, we are apt to infer that these have brought on the attack, and particularly if their evacuation be followed by relief. This may be so, or it may not. When a patient has recently taken food, and when, either spontaneously or by the operation of medicine, he throws it up undigested or sour, or passes it in this state from the bowels, it is a natural inference that the food has caused the attack, especially when it has been erroneous either in quality or quantity. But this inference will often be a mistaken one. It may be that the indigestion has been the consequence of disease and not its cause.

When the food has been really the sole cause of the attack, its complete evacuation is usually followed by entire relief, whether effected soontaneously or by medicine.

But the evacuation of the offending food, either by vomiting or purging, is not always complete, and portions may remain behind, keeping up a continued state of irritation in the stomach, or even the whole of the alimentary canal, indicated by nausea, retching, epigastric distress, ineffectual attempts to vomit and imperfect action of the bowels. Where this state exists it is not well to persevere in active measures to procure evacuations, but to leave the organs at rest, administering only mild, soothing and liquid nourishment, and a few grains of carbonate of soda in solution, or a small quantity of lime water, every few hours. Sometimes very soon, or at farthest after a few days, the disturbance will subside, the organs rally and relieve themselves of their contents; or if not, may be made to do so by a mild evacuant, such as rhubarb or castor oil.

Where food has not been the whole cause, its evacuation, though giving much immediate relief to the sensations of the patient, does not relieve the disease, though removing the cause of its aggravation and continuance. Both of these contingencies are well illustrated by what happens in common cholera morbus. An attack of this disease may take place simply from irritating food at any period of the year, but especially in the summer, when the organs have become irritable from the influence of heat. In such cases, promoting effectual vomiting by warm diluents, or producing it by an emetic of ipecac, is generally sufficient. If the irritation and distress is great, the addition of ten or fifteen drops of laudanum and a teaspoonful of cinnamon to the emetic will render its operation easier and more effectual, by preventing that unequal and irregular action of the stomach and bowels which prevents in an irritable organ a complete effectual effort. But there is another class of cases, occurring almost exclusively after a period of very hot weather, in which the attack is of a different kind and its cause lies deeper. In these, food does not cause the attack; the attack finds the food in the stomach and its digestion is arrested. Its presence increases the irritation of the organ, for its digestion being arrested and the condition of the stomach changed, it becomes a foreign substance. Still its evacuation does not give any relief, and violent symptoms follow, such as epigastric distress, with severe ineffectual retchings and cramps. A very early emetic, with an opiate largely diluted, will sometimes succeed here, but more commonly the best method is to quiet all activity by very full successive doses of laudanum—from 80 to 100 drops—each

dose to be repeated at once if rejected, and then leave the patient for a time without further medication. There is a series of cases lying between these two extremes. A man in health before going to bed eats largely of some unusual and improper food, and is waked up in the night by violent vomiting and purging. Another takes only his ordinary food, but is also attacked with equal or greater violence. The first throws up his food in an undigested state, and in twenty-four hours is well. The second also throws up his food in the same condition, but without the same relief. He has pain, nausea and epigastric distress, great prostration, painful spasms in the muscles of the abdomen and limbs, violent retchings with discharge of acid secretions and of green and yellow bile, perhaps copious discharges of similar matters from the bowels, he is reduced to a state of great exhaustion, becomes cold and almost pulseless—he may even die, though this is uncommon. At any rate, after the urgent symptoms have ceased, he continues ill for many days, and slowly recovers.

No doubt improper food alone will sometimes produce continued disease; but more commonly when disease is apparently produced by food, as indicated by its expulsion in an undigested or chemically altered state, there has existed a preceding predisposition which the food simply calls into activity.—There are some persons, indeed, with a stomach so weak and irritable that they may be regarded as always in such a state of predisposition. By great care they may keep themselves infinitely in a comfortable state of health, but upon the occasion of some error or diet, or from any cause of irritation or exhaustion, they will undergo an attack, not relieved by evacuation, but following a course more or less like those just described.

These remarks are intended to illustrate conditions of the stomach which may arise in disease and in any period of disease—in which some offending load is present which may be the sole cause of the symptoms from which the patient suffers, or which may be only the consequence of a condition under which the stomach has previously labored. The general principles of treatment will be always essentially the same. In either case, the removal of the load is to be desired and attempted. If the attempt is successful, in the one case the whole trouble is removed, in the other an impediment to its removal by the efforts of Nature is taken away. If unsuccessful, the organ is not to be annoyed by repeated efforts,

but either to be left to rest, or its irritation soothed by palliating measures.

Much caution is to be used in judging of the state of the patient as connected with the presence of undigested food. Thus periodic attacks—such as epilepsy and sick headache—are apt to be attributed to this cause, because, either spontaneously or by an emetic, articles last eaten are rejected, and often in what is regarded as an unnatural state. Now even the contents of a stomach engaged in the act of a healthy digestion are often acid, and have a disagreeable odor and appearance; so that if a fit of epilepsy comes on during this act, and an emetic be given, it is apt to be inferred that the food has been the cause of the fit, and that it was of an improper kind. This seems to the observer to be confirmed by the fact that relief follows the act of vomiting, and as a consequence the articles taken are in future forbidden. Hence, a patient is sometimes unnecessarily restricted as to his diet, from the delusive idea that indigestion is the whole cause of his malady, while, in fact, the indigestion is caused by the approach of the fit. A similar remark is true of sick headache. No doubt occasional attacks of it will be brought on by great errors as to diet, as is also the case with attacks of epileptic convulsions. But in both these maladies there is in most patients a constitutional tendency to them, which will bring them on at certain intervals whatever care is taken. A reasonable restriction as to food will prolong this interval, but the return of the attacks is a species of necessity and cannot be wholly prevented.

There are other conditions of the digestive organs, occurring either as insulated attacks or at the beginning or in the course of other diseases, which require notice, and they often present questions of treatment difficult to determine. Thus, severe and painful spasm may seize the stomach from the presence of undigested food, or from food of an improper quality or quantity. This spasmodic state may be regarded as the result of an abortive or imperfect attempt to vomit—just as cramp will sometimes seize the calf of the leg, or some other muscle, as a consequence of an attempted voluntary motion, instead of the normal voluntary contraction. In this state of things there are two modes of treatment, either of which may be successful or either of them fail, so that it is not always easy to decide between them; either by an emetic or ipecac, which shall substitute the normal effort to vomit for the spasmodic condition which seems, as it were, to grasp the offending contents in a close embrace; or by an opiate which

quells the spasm, and thus brings the stomach into a condition that enables it to empty itself in the natural way, or suffer an emetic or cathartic to do this without opposition. When the spasm and pain is moderate, intermittent with long intervals, and accompanied by nausea and efforts to vomit, especially if we know that the food has been recently taken, in large quantity and very indigestible—an emetic guarded by an opiate and some aromatic, may be employed safely.* But if the spasm be fixed and violent, and the food has been taken some time before, so as to be partially digested and be passing into the intestines before the attack begins, a full opiate, repeated immediately if rejected, and at intervals, till the spasm is relieved, seems to be the proper method.

An analagous state of things occurs in the large intestine, giving rise to the different forms and degrees of colic. Colic probably originates in an effort to carry forward and discharge something from the bowels—either fæces, food or flatus —which is ineffectual and passes into spasm. Here, too, relief may be obtained in two ways, either by a cathartic, which substitutes the normal peristalic action for the morbid condition, or by an opiate, which quiets that condition, leaving the offending matters, after a period of rest, to be evacuated naturally or by a cathartic. When the attack is moderate, the cathartic practice may be employed, but in a large proportion of cases the opiate is better, or at any rate easier to the patient. Attacks of this description are very frequently met with, varying in degree from those which are well marked and formidable, to those so mild as to be simply very uncomfortable. The treatment will, of course, vary with the intensity. A dose of castor oil, or of some of the aromatic and stimulating purgatives, such as tincture of aloes and myrrh, or compound tincture of senna, or an operative enema, aided by external applications, are often quite sufficient, whilst at other times large doses of laudanum or other opiates became indispensable. It is acting on the safe side to prefer the latter method to the former. It certainly sometimes happens that the attempt to remove the trouble by cathartics converts a moderate and simple case into a severe and complicated one. The stomach is nauseated by the medicines administered and rejects them, or the whole canal is thrown, by the efforts excited, into a state of high irritation, and a train of distressing

* R. Inf. menth. pip. vel cinnam., two ounces; pulv. ipecac., two scruples;—zinc. sulph., one scruple; tinct. opii, thirty drops. Mix. One half to be taken at once and repeated.

and sometimes alarming symptoms follows. When dependence is placed upon opiates, it is better at first to give a little more than is absolutely necessary, than a little less. An under dose may require to be repeated, and thus in the end a larger quantity be taken than if a full dose be given at once.

There are some persons whose organs of digestion are extremely susceptible to all medicines, in whom the attempt to evacuate them at any period of disease, and sometimes even in health is productive of great irritation, indicated by nausea, vomiting, colicky pains, ineffectual retchings, and great restlessness and prostration. By some practitioners, the evacuation of the bowels is regurded of such indispensable necessity, that the attempt is repeated and persisted in, as I think, sometimes to the manifest injury, certainly to the great annoyance of the patient. It is seldom so essential a point as to render this advisable. Such a condition of the canal necessarily lessens the ability to contend with whatever disease may be present, and is a greater evil than the presence in it of the substances it is attempted to remove.

In such constitutions, when we are acquainted with them, it is better to trust the case wholly to the mildest palliatives, and soothing external applications, emptying the bowels only by enemeta. By this plan the disease may run through its natural course without evoking that tendency to gastric and intestinal irritation which is peculiar to the patient. Where the constitution is unknown, and this state of things is brought on by the ordinary course of treatment, as soon as it manifests itself all active interference should be suspended, and the disturbance that has been created may then spontaneously subside. The subsidence will be sometimes aided by articles grateful to the taste and gently stimulating to the stomach, such as some of the essential oils dissolved in alcohol—the oils of worm-wood, of checkerberry, of cinnamon, of peppermint, etc. Small quantities of soda combined with these, and effervescing mixtures in small and frequently-repeated doses, as of soda and lemon juice, will often be of service, as will also small quantities of brandy slightly diluted. The effect of opiates is more uncertain. A grain of solid opium or more is occasionally successful, or a frequent repetition of very small quantities of morphia, black drop or the liquid extracts. All attempts at evacuating the canal, except by enemata, should be avoided; irritating external applications are at best useless, and those only of a soothing kind will be of any avail, such as

warm poultices to the abdomen and fomentations of water, hops, chamomile, etc.

The conditions here referred to as objects of attention are not in themselves the disease, but are accidents which may occur in any disease. Their occurrence, however, is an event of importance in the progress of the case in which it takes place, and may seriously interfere with its favorable course.—The violence of this secondary affection is, however, by no means any measure of the severity of the primary, but rather of a peculiarity in the patient himself. It may occur in even so light a disease as a severe cold, and, in the same person, is less likely to occur in a very grave attack than in one of a moderate character. The same thing is not unfrequently observed as to other constitutional peculiarities. They continue to exhibit themselves in cases of slight disease, but a very severe one, seems, as it were, to reduce all constitutions to nearly the same level, and to over-ride tendencies which manifest themselves on ordinary occasions. Thus, it is a matter of common observation that nervous and hysterical patients, who are abundantly troubled with their peculiar symptoms during trifling ailments, and even in their ordinary health, become tranquil, quiet and entirely free from them, in aggravated and especially in mortal diseases.

Somewhat related by certain affinities to the cases which have been considered, in another condition that may occur in almost any period of disease, in connection with the attempt to evacuate the alimeniary canal; I mean what is popularly called a "stoppage of the bowels." This is a prominent characteristic of an attack of ileus, and is then at once accompanied by other characteristic symptoms, but I refer more particularly here to its occurrence where there has been no preceding indication of any local difficulty in the bowels themselves. In a case where these organs have been acting very well, there is a sudden failure in the operation of a purgative; a more active one is administered, which is still resisted, and we find that the canal is closed. Perseverance in the attempt to open it only agravates the difficulty and brings on a state of general irritation, such as has been above described. Very powerful cathartics will sometimes force their way through and give relief, but not generally; and the case may assume all the formidable characteristics of ileus and prove fatal. The local state of the parts concerned cannot always be determined. In those which terminate in death, there is usually found some of those mechanical impediments which are enumerated as the

causes of ileus, such as introsusception, diverticula, internal hernia, stricture, etc. But in those where the bowels finally give way, we can only conjecture the state of things. It may be simple torpidity, inflammation, or spasm of some part of the tract of the intestines.

The essential object of treatment was formerly judged to be the procuring of discharges. Because relief always followed the opening of the bowels, it was inferred that this was the *sine qua non*, and the thing to be accomplished at all events. But as it was found that in fatal cases a state of disease was revealed which no purgatives could have removed, it was quite as reasonable to judge that the "stoppage" in those recovering was dependent upon an entirely different condition of parts; that this condition gave way and then discharges took place, and that seemed to be the cause, which was in fact only the consequence. A practice in conformity with this view is now generally regarded as most judicious. Wherever there is a decided closure of the intestines, we are to cease active interference so far as this particular object is concerned. Where there is no pain or other indication of actual disease, we are simply to stand aloof, and by and by, in a vast proportion of cases, the difficulty is spontaneously resolved. Where there is pain, tormina, swelling the other symptoms of mechanical obstruction, and ineffectual efforts on the part of the intestine, all active symptoms are to be quelled by opium, and the parts are to be kept under its full influence till the patient dies or the bowels act of their own accord or by enemata. This course not only is attended by far less suffering in cases necessarily mortal, but by the more frequent recovery of cases which, under the aggressive form of treatment, seem likely to have come to the same termination.

I would remark, with regard to all these different states of the canal which have been spoken of, that in looking back upon past experience, I am persuaded that their occurrence is far less frequent, the recovery from them far more speedy, and the suffering of the subjects very much less, under the palliative treatment, than the persevering and active medication which it was formerly judged necessary to adopt.—*Bost. Medical Journal.*

SANITARY CONDITION OF TROOPS.

We publish with pleasure the following excellent directions for the sanitary conduct of the troops in the field, which constitute the substance of a report prepared by Dr. John Ware, of the State Medical Commission, to be communicated to the Massachusetts regiments in active service.

Directions.—Soldiers should recollect that in a campaign, where one dies in battle, from three to five die of disease.—You should be on your guard, therefore, more against this than the enemy, and you can do much for yourselves which nobody can do for you.

1. Avoid, especially, all use of ardent spirits. If you will take them,—take them rather *after* fatigue than before.—But tea and coffee are much better. Those who use ardent spirits are always the first to be sick and the most likely to die.

2. Avoid drinking freely of very cold water, especially when hot or fatigued, or directly after meals. Water quenches thirst better when not very cold and sipped in moderate quantities slowly—though less agreeable. At meals, tea, coffee, and chocolate are best. Between meals, the less the better. The safest in hot weather is molasses and water, with ginger, or small beer.

3. Avoid all excesses and irregularities in eating and drinking. Eat sparingly of salt and smoked meats, and make it up by more vegetables, as squash, potatoes, peas, rice, hominy, Indian meal, etc., when you can get them. Eat little between, when you have plenty at meals.

4. Wear flannel all over in all weathers. Have it washed often when you can—when not, have it hung up in the sun. Take every opportunity to do the same by all your clothing, and keep everything about your person dry, especially when it is cold.

5. Do not sit, and especially do not sleep upon the ground, even in hot weather. Spread your blanket upon hay, straw, shavings, brush-wood, or anything of the kind. If you sleep in the day, have some extra covering over you.

6. Sleep as much as you can, and whenever you can. It is better to sleep too warm than too cold.

7. Recollect that cold and dampness are great breeders of

disease. Have a fire to sit around whenever you can, especially in the evening and after rain, and take care to dry everything in and about your persons and tents.

8. Take every opportunity of washing the whole body with soap and water. Rub well afterwards. If you bathe, remain in the water but a little while.

9. If disease begins to prevail, wear a wide bandage of flannel around the bowels.

10. Keep in the open air, but not directly exposed to a hot sun. When obliged to do this, a thin, light, white covering over the head and neck, in the form of a cap with a cape, is a good protection.

11. Wear shoes with very thick soles, and keep them dry. When on the march, rubbing the feet, after washing, with oil, fat or tallow, protects against foot-sores.—*Boston Medical Journal.*

ON THE PALLIATIVE TREATMENT OF ASTHMA.

By T. L. PRIDHAM, Esq., Bideford, North Devon.

The first on the list is stramonium, the fumes of which may be collected in an inverted glass bowl with a narrow mouth; the bowl being charged to its full is placed under the mouth of the patient, who is directed to inhale to the fullest extent in his power the smoke which has been collected in the bowl, taking care to hold his head away from the bowl, when an expiration takes place. Chloroform, both taken internally or inhaled, is a powerful remedy, but must be employed with caution, and never administered except by a medical attendant. The fumes of nitre paper in a state of ignition, well inhaled, is often a valuable remedy. Care should be taken to procure the best prepared from a good chemist. Chloric ether and the tincture of the lobelia inflata will occasionally relieve.—Bicarbonate of soda, as well as chlorate of potass, given in full doses, I have frequently seen produce a good effect. Again, I have seen repeated doses of sulphurate of alum procure relief, the powder being allowed to dissolve on the tongue before it is swallowed in ten grain doses. I have also seen the fumes of tobacco, inhaled as I have recommended in the use of stra-

monium, relieve, when other remedies have failed; but I do not like this remedy, it produces such deadly faintness and nausea. Small drinks of the best Mocha coffee, made strong, will often procure relief. On two occasions, when every other remedy failed, I succeeded in procuring almost instant relief, by injecting two grains of morphine and a drachm of tincture of assafœtida. These were cases where mental distress appeared to be the exciting cause.

I have often sat at the bed-side of one, suffering from the severest form of the disease, watching with great anxiety the result of prescribed remedies, and it has not unfrequently happened that many have been tried without relief, the patient all this time gasping for life with sufferings the most intense, when relief has at length come from a remedy apparently the most unlikely to procure it—so capricious is the disease, and so uncertain the remedy in asthma cases of this particular character.—*Brit. Med. Jour. Dec.* 29, 1860, *p.* 1000.

MIDWIFERY, AND THE DISEASES OF WOMEN, &c.

Amenorrhœa.—*Neuralgia.*—Pains under the left breast, in the intercostal spaces, or in the temples, are very frequent and distressing symptoms occurring in cases of amenorrhœa. They are most quickly relieved by anodynes, but generally only temporarily. The use of small doses of arsenic (two drops of Fowler's solution thrice a day) will be of more ultimate benefit, although not so immediately effectual. When there is any indication of a rheumatic taint of constitution, very satisfactory results will be obtained by the administration of thirty or forty drops of the tincture of *actea racemosa*, or black snake-root (an American plant,) three or four times a day, in a little water. The most rapid relief can be given by the subcutaneous injection of morphia. In *chronic and obstinate neuralgic headache* a very effectual remedy in my hands has been from half a grain to a grain of sulphate or phosphate of nickel. (Prof. Simpson, p 257.)

Application of the Forceps.—The aphorisms Denman so frequently taught in our medical schools and followed by practitioners, that the forceps must never be applied until the

head has rested on the perineum for six hours, or except an ear of the fœtus can be felt, are both bad. There are many cases where such delay would be highly injurious, and it is unnecessary to feel the ear of the fœtus. (Dr. A. B. Granville, p. 307.)

Artificial Dilatation of the Os Uteri.—When the os is rigid and contracted in the first stage of labour, and turned towards the rectum, instead of downwards and forwards, first influence the patient gently with chloroform in the following manner: Pour a little chloroform into a tea-cup and hold the edge of the cup to the lower lip of the patient, bringing the open vessel a little over the mouth, but not so as to prevent the free ingress of air both into the mouth and nose; the nurse can manage this whilst you watch the effects. Now introduce the forefinger into the rigid os uteri, and, while the patient is under the influence of the chloroform, gently dilate the part by very quietly, during each pain, pulling the anterior lip towards the pubes. You may keep the patient gently influenced by the chloroform till the os has lost all its rigidity and has become dilated. Now leave off the chloroform till the tough perineum has to be dilated, when you may use it a little again. You will thus save hours of misery and do good to your patient. If the chloroform act too much, cempound spirit of ammonia either taken or breathed is an almost instantaneous antidota. (Dr. Braithwaite, p. 210.)

Cæsarean Section.—If the operation be done with resolution and rapidity, no great alarm need result if we find the placenta attached to the anterior part of the uterus. A sudden gush of blood will follow the incision into it, but the operation must be nevertheless proceeded with, and the placenta be extracted first, as rapidly as is consistent with doing it well. (Dr. J. Edmonds, p. 219.)

Cancer of the Breast.—Sulphate of zinc is one of the best tonics which can be given; somtimes the pain is alleviated and frequent improvement of the general health follows its prolonged use. (Mr. H. George, p. 260.)

Catamenial Acne.—In some persons a crop of acne appears if the proper menstrual flow is at all checked. In many, this eruption disappears if the flow be restored, but in some it still remains persistent. If, in these cases, you apply the oil or butter of antimony with a brush, very thinly, and neutralize it quickly with tho bicarbonate of soda, the eruption will frequently disappear very speedily; and thus used, the preparation does not cause any pain, nor does it exercise an

ustic action. Citrine and mercurial ointments are also very od applications. If one part of the ordinary tincture of dine be mixed with two parts of the milder aquæ ammoniæ, d allowed to stand forty or fifty hours, the mixture, which at first brown, becomes quite clear and colorless. As it ssesses all the activity of the tincture of iodine, and is yet lorless, it forms one of the best preparations for external plication. It may be used to advantage in cases of acne. rof. Simpson, p 258.)

Chronic Mammary Abscess.—These cases are sometimes ry difficult to cure. It has been recommended to pass a ton across them in a perpendicular direction; but milder eans may be employed with success. Apply Scott's ointent to the breast, spread on lint, then place tightly over this rips of plaster an inch and a half in breadth, and bandage e whole carefully. (Mr. W. Coulson, p. 255.)

Deficient Involution of the Uterus after Labor.—*romide of Potassium.*—Sometimes the uterus does not unrgo the normal retrograde metamorphosis after labor, and mains large and heavy, the fibre cells being loaded with tty particles. The uterus is felt large, soft, and heavy, and ere is a feeling of weight and discomfort in the pelvis. In any cases, the abstraction of a small amount of blood from e vaginial portion of the uterus, or the perineum, is called r, and is more especially beneficial in those cases where ere lingers any degree of congestion or of inflammatory tion in the uterus. The most efficacious of absorbent remees are the iodide and bromide of potassium. The latter is referable, however, as it does not produce that marasmus so ten caused by prolonged use of the former. The bromide, oreover, acts as a special sedative on the reproductive organs. he dose should be about six grains, three times a day, and it ay be continued with iron or other tonics, if anæmia or ony co-exist. Good diet and other hygienic means must be nployod. (Prof. Simpson, p. 224.)

Fibrous Tumor of Uterus.—Intra-uterine fibrous tumors ay be destroyed by gouging out a portion of their tissue. he vitality of the growth is so low, that the remaining porion gradually disintegrates, and comes away as discharge. s a preliminary step, it is better to incise the os and cervix teri. The best instruments to use are those of Mr. Harper, r which see wood-cuts and description at p. 245. (Mr. I. B. rown, p. 242.)

Inflation of the Lungs of Infants.—*New Instrument.*—Dr. Wilson, of Glasgow, has invented an instrument for the purpose of inflating the lungs of infants born in an asphyxiated state. It consists of a small india-rubber ball, to which is attached a slightly-curved german-silver tube about six inches long, and having two openings a short distance from the point and a larger one almost an inch from the attachment of the tube to the ball. The tube is introuced into the larynx, and the larger opening being closed by the finger, the ball is compressed and air forced into the larynx; the finger must be removed during the expansion of the ball that fresh air may enter by the larger aperture. The insufflation of the lungs must be gently and slowly performed, and the chest may be slightly compressed after each inflation. If there is much lividity, allow a drachm or two of blood to escape from the divided vessels of the cord. The instrument may be obtained from Mr. Hillard, surgical instrument maker, Glasgow. (Dr. J. G. Wilson, p 261.)

Ovarian Tumors.—After tapping, apply constant and regular pressure, this much retards the refilling of the cyst. The treatment is only applicable in the monocystic forms of the disease. (Mr. I. B. Brown, p. 247.)

Ovariotomy.—If you think ovariotomy advisable in a case do not delay it, for after the abdomen has been disturbed by repeated tappings, and the constitution drained by the constant refilling of the cyst, the mortality is very much increased. (Mr. I. B. Brown, p. 248.)

When should the clamp be used, and when the ligature, in securing the pedicle? This depends entirely upon the length of the pedicle; if it is pretty long the clamp is much preferable. If short, we are obliged to use the ligature, letting the stumy of the pedicle return within the abdomen; when this is done the mortality is much greater. (Mr. I. B. Brown, p. 247.)

Sixteen per cent. of the fatal cases die from bleeding from the pedicle. A most excellent plan, and one which renders the use of the clamp unnecessary, is to cut through the bottom portion of the tumor, instead of the pedicle, leaving a portion about the size of a small band, attached; this must be retained outside the abdomen. All risk of serious hemorrhage is avoided. (Dr. Tanner, p. 249.)

The metallic sutures or hare-lip pins, used to close the abdominal wound, must be passed through the peritoneal edge as well as through the integuments and muscle; otherwise the

eritoneum will retract, and a raw surface of considerable eadth will be left exposed to the general peritoneal cavity. Ir. T. S. Wells, p. 250.)

Besides the precaution of fastening the pedicle externally, d making the smallest external incision compatible with the ssage of the tumor, other essentials for success are:—1. To ss silver pins so deeply through the abdominal parietes so to include the peritoneum. Union by the first intention of e deep parts of the wound is thus secured, and the acciden- l entrance of any pus into the abdominal cavity is prevented. Nutriment and stimulants must be very freely administered r rectum, when the patient is unwilling or unable to swallow em; they are capable of absorption into the system to a st remarkable extent. (Dr. L. Roberts, p. 250.)

Placenta.—*Removal of, after Labor.*—It is usual to wait a pain or to be able to feel the insertion of the cord into e placenta, before attempting to remove it. But pains may slead, and may arise from other causes than constructions the uterus, and the feeling for the insertion of the cord is a ry questionable proof that the placenta has become detached m the uterus. The great objection, however, is, that fre- ent and painful examinations are sometimes, and indeed en, necessary. The cord after the birth of the child will be nd in a state of flaccidity; in a short time, however, it ain becomes turgid with blood, which state again passes to one of flaccidity; and this occurs so regularly that this ccid state following the turgidity constitutes a sign of de- chment, which may almost invariably be relied on. (Mr. Clay, p. 223.)

Polypus of the Rectum in Children.—Our attention is ain called to this affection by a case occurring at Guy's Hos- tal. The polypus had been overlooked completely by veral medical men, who evidently had not read the able ticle written on the subject by Mr. Bryant last year (*Retro- ect*, vol. xli., p. 255.) This affection is most likely to be istaken for piles, or simple prolapsus of the rectum. There always hemorrhage from the bowel. The polypus may be oken off by traction, or removed by ligature. (Mr. T. Bry- t, p. 263.)

Position in Labor.—In cases of lingering and protracted bor, it is often a good plan to let the woman sit upright upon o chairs fastened to each other *in front* by tape or other ong material, and the *backs* separated one and a-half feet, may be necessary. The patient during a pain can take

hold of the bed-post, and the accoucheur can from time time ascertain the progress of the case. The patient must l removed to bed when the head is nearly born. In all cas in which this proceeding is adopted, the head should be with the pelvic inlet, and the os uteri dilated fully one half; a further, the failure of the pains in the horizontal position m be first evidenced. (Mr. R. Hardy, p. 301.)

Pregnancy.—*Operations during.*—If it becomes neces ry to perform any operations on a pregnant woman, do r hesitate to perform it; but if it can be delayed till the labo is over, defer it. Some of the most serious operations, as t cheotomy, operations on varicose veins, and removal of c dylomata about the anus and vagina, have been perform without any untoward result whatever. (Mr. Shaw, p. 241

Premature Labour.—*Induction of.*—Pass the tip of t fore-finger of the left hand within the os uteri, and sligh dilate it, pulling the neck down a little, and passing the fin round a little inside. This process, if not accomplished eas at first, may be done more successfully upon a second attem Upon each occasion some pains will ensue, and ultimately bour will come on, when an elastic tube may be passed up tween the walls of the uterus and the membranes, and a lit cold water injected. If any resistance is experienced in int ducing it, the tube must be withdrawn and reinserted in other direction. Labour will now proceed naturally. (J. H. Sames, p. 217.)

Prolapsus Ani of Children.—Those surgeons who like hazard such a mode of treatment, may follow the plan p sued lately in a case of this nature by M. Foucher. This g tleman injected just external to the anus, ten drops of a v weak solution of sulphate of strychnia (twenty centigram s to twenty grammes of water,) using a Wood's subcutane s injection syringe. "The cure was immediate." The pri ple, of course, is the direct action of the salt upon the fibre f the sphincter. (M. Foucher, p. 263.)

Prurigo Pudendum.—In cases of follicular inflammatio f the labia, in ecezama, and prurigo pudendum, carefully o over the diseased portions of skin or mucous membran a piece of cotton-wool soaked in a solution of nitrate of silve - This may be continued two or three minutes at a time, anc e repeated every day or two.—(Dr. J. Tilt, p. 254.)

Puerperal Insanity.—*Its connexion with Albuminuria.*- t is a curious fact, unknown by the majority of the profess 1, that in a large proportion of cases of puerperal insanity, a 1-

minuria precedes and attends the first access of the disease.—It, however, generally passes off with extreme rapidity, often in two or three days. Hence it has been so rarely found, on examination, that no connexion between albuminuria and puerperal insanity has hitherto been recognised. When the insanity recurs in the form of successive attacks, each attack will be found connected with a fresh appearance of albumen. If the doctrine of Frerichs be right, that the urea retained, as it always is in cases of albuminuria, is not injurious *per se*, but only from its decomposition into carbonate of ammonia, (albuminuria with, of course, uræmia) causing two other diverse and separate affections—puerperal convulsions and puerperal insanity; the former being caused when carbonate of ammonia results from the change in the urea, and puerperal insanity when some other unknown alkaloid product results. (Mr. Calvert has lately shown that various unknown alkaloids are formed during animal decomposition.) (Prof. Simpson, p. 235.)

Puerperal Mania.—If, in the onset of a case of puerperal mania, we can induce sleep, the probability is that the patient will wake up tolerably well, or at any rate, the case becomes much more hopeful. The best remedy is opium, but it must be given in doses of two or three grains. If the patient, cannot or will not swallow, you may succeed in introducing the drug in the form of a suppository into the rectum. One or two grains of morphia are required when then the drug is administered in this form. In some cases sleep may be procured by means of ether or chloroform, and the patient thus anæthetised has continued to sleep on and has awaked up quite well.—(Prof. Simpson, p. 233.)

Retroversion of the Gravid Uterus.—In reducing a retroverted gravid uterus it is very important not to attempt to push directly upward at first, as the promontory of the sacrum is in the way. The womb must be placed as much as possible in the right oblique diameter of the pelvis, by drawing the os and cervix towards the left acetabulum, and moving the fundus as much as possible towards the sacro-iliac syncondrosis. It is also well before commencing much manipulation, to introduce compressed sponge into the vagina, to dilate that canal for the more ready introduction of the hand, and to exercise gentle and steady pressure on the uetrus. (Dr. T. Skinner, p. 213.)

Sore Nipples.—A mixture of equal parts of brandy and glycerine forms an excellent application. (Dr. W. Frazer, p. 260.)

Suppression of the Secretion of Milk.—Moisten a flannel with saturated solution of camphor in glycerine, and apply it over the breast. This will often check the secretion of milk very quickly. (Dr. Harriss, p. 260.)

Vaginitis.—Inject a solution of Nitrate of silver (two scruples to the ounce.) This acts equally well whether the vaginitis be the result of uterine catarrh, or occurs spontaneously. It is most conveniently done if a small glass speculum be inserted first; as the speculum is withdrawn the solution follows it and may be received in a cup. (Dr. E. J. Tilt, p. 254.)

Vesico-Vaginal Fistula.—Do not operate in these cases when the woman is suckling. Also avoid operating on a ruptured perineum at this period. The patient is more liable to pyæmia at such times. [Mr. 1. B. Brown, p. 240.]

Mr. Buxton Hilliard, surgical instrument maker to the Glasgow Royal Infirmary, has invented a set of instruments which we think will prove extremely useful in the tedious operation for the cure of vesico-vaginal fistula. The speculum is one which, preserving the form of the vaginal, expands so as probably to give a better view of the parts than any speculum previously in use. The edges of the fistula are seized by an instrument called a "fistula clamp," which is so contrived that the edge of the fistula, when seized by it, is elevated above the surrounding parts, and only requires shaving off with a slightly curved knife. When Bozeman's knives are used there is often much uncertainty whether the whole of the edges have been effectually pared or not; when this instrument is employed there can be no doubt about it. The tubular needle invented by Mr. Price is the best instrument for passing the metallic sutures through the edges of the wound. The ends of the ligature are brought together and twisted by means of another instrument, and an oval metallic plate applied, differing from Bozeman's in having nipples attached to it, instead of loose pellets being employed. Much trouble is thus saved, otherwise caused in passing each pellet separately. These instruments will be better understood by referring to the original article and the engravings page 238.—*Braithwaite.*

MILK-SICKNESS.

VALEDICTORY ADDRRSS DELIVERED BEFORE THE NEW CASTLE MEDICAL SOCIETY.

BY ISAAC MENDENHALL, M.D., Ashland, Ind.

GENTLEMEN:—Soon after the organization of our society, several members seemed anxious that this question should be discussed. In order to bring the subject before you, your President appointed at different times a member to read an essay on the subject. They having failed, I thought that I would at least give it a passing notice, and thereby get the opinions of other members.

History.—As far as we know, the first notice of the disease was published in Cincinnati, 1809, and consisted of the observations of Dr. Barbee, a highly intelligent physician of Bourbon county, Ky., who, on a visit to the upper settlements on the great Miami river, first became acquainted with it.* Since that time our medical journals have presented a great many papers on this malady; but notwithstanding the ability with which some of them have been drawn up, much obscurity and doubt envelope the malady. Kentucky, liberal in her efforts to relieve the afflicted, several years ago offered a reward for the discovery of the remote cause or causes of the disease; but no one has yet appeared to claim the prize with success.

This disease has been known in the States of North Carolina, Virginia, Tennessee, Kentucky, Ohio, Indiana, and Illinois. I believe it has not yet appeared west of the Mississippi river. In these regions it has been known at different times and different places; but it appears to be more prevalent in summer and autumn, though no season is entirely exempt from its ravage.

I have called the disease *milk-sickness*, from which you will infer that it is a disease produced in man by the milk of the cow, that contains a "peculiar" poison. Prof. Slack terms it *ergodelateria*, and says it is caused by the cattle eating blasted grain. As yet, we have no proof that blasted grain produces

* According to the late Dr. Drake, it was known in North Carolina eighty years ago. *Vide Western Journal of Medical and Physical Sciences*, ix., 243, which I found after penning the above.

the disease. As yet, we are entirely *ignorant* in regard to the cause of the *malady* in the gramntvorous animals: man generally receives the poison by using the flesh, milk, butter, cheese, etc., of the gramnivorous animals that have received a charge of the poison. Dogs eating of the flesh get the slows, and are unable to attend to their masters' calling. Buzzards cannot fly after eating the poisoned flesh; and all animals that eat of the dead carcasses are more or less affected. The disease is known by the animal trembling on exertion. Whilst at rest, no manifestations of disease can be observed. In many instances, it is no uncommon occurrence for cattle to drop down dead after being drove some four or five miles, that present no symptoms of the disease prior to the travel. Immoderate exercise is not a prerequisite of the manifestation of the disease: they will tremble while in their ordinary occupation of grazing, and die without the heat of labor. Calves will eject their milk and fall down and die whilst sucking; and hogs will eject their food. These are the common symptoms by which the disease is known in the animals, until a post-mortem examination reveals the following phenomena: The stomach and intestines are inflammed; the mucous coat is measurably destroyed; the entire coats are in some cases gangrenous; they are a dark, or, I might say of a black appearance. This black color is not a mere congestion; the coats are not firm, though they are not easily broken down. In the ventriculus, or paunch, and, indeed, through out the whole alimentary canal, is found a substance conglomerated and resembling cemented sawdust, in the shape of balls, somewhat elongated, some of them perfectly adherent to the coats of the digestive tube, whilst others are loose.

So far as I am acquainted with the semeiology of the diseases of animals, and their morbid appearances after death there is no disease analogous to the one under consideration as stated before, there is nothing known in regard to the cause up to this time. Cultivation of the soil is considered a sure preventive; we may therefore infer that it is of vegetable origin. The horse, mule, cow, goat, sheep, hog, dog, and buzzard, have all been known to have the disease.

Symptoms in man: All ages are susceptible to an attack though children are not so apt to be taken down by its invasion as the adult. When the invalid is about to be taken down he feels weary, and trembles more or less on exertion, and experiences pain, numbness, and slight cramps of the extremities at the same time he generally becomes costive, and under

fatigue is likely to experience nausea; his appetite is not generally impaired at first, but has a feeling of depression and burning at the stomach; is irresolute, and is as much indisposed to mental as bodily effort. He may continue in this situation for some time and recover spontaneously, or with the aid of a mild cathartic; but more commonly, under the influence of an exciting cause, severe symptoms supervene: a full meal, indigestible food in the stomach, or exertion, is such an one. The invalid being subject to these, full vomiting comes on, with much epigastric distress. He throws up the contents of the stomach, and, continuing at short intervals to vomit or retch, brings up small quantities of acrid mucus, tinged in streaks or spots of an indigo color, but very seldom any bile. As the disease advances it becomes of a muddy, dirty appearance; the vomiting is so obstinate in many cases that not a particle of medicine or fluid can be retained for some time; there seems, indeed, to be an inverted peristaltic action of the stomach and bowels; during the intervals the patient lies on his back, and throws himself from side to side of the bed. There is an insatiable thirst: his urgent desire is water, to allay, as he confidently expects, the burning sensation of the stomach, which is a constant symptom; its soothing effects are but temporary; it is soon ejected, and he urgently calls for more. In the midst of these symptoms his bowels remain torpid, though in some cases diarrhœa is present. But little pain is complained of in the bowels, and they do not appear to swell, but the contrary, and seem retracted and reduced in volume; so much so that the pulsations of the abdominal aorta can be distinctly felt, and is found beating with unwarranted violence. The discharges from the bowels consist at first of the natural excrements contained in them. They soon change to a dirty soap-suds appearance, and very offensive to the olfactory organs; after the use of medicine, they look as near like jelly and green moss chewed and mixed together as anything I can compare it to. The breath is generally offensive, somewhat resembling the smell of ptyalism and chloroform. I heard some of the farmers say it resembled the odor evolved from the rattlesnake. I have frequently noticed the same fætor to a considerable extent in the breath of children affected with worms.

In the forming stages there is but little change in the appearance of the tongue, but it soon coats over with a light white fur; after a few days it inclines to change to a brown color, particularly the middle part; the tip and edges are then

of a red and fiery color. The pulse is but little increased i frequency at first, most generally a little below the norma range of action; but as the disease advances, and places th patient in imminent jeopardy, the pulse increases in frequenc The respiration is with an occasional sigh, with a distressin sense of oppression in the chest. If the disease is not arre ed, the irritation of the stomach increases; and if the d charges were not black before, they soon become so, a sometimes assume the coffee-ground color of the yellow fev The breathing becomes more oppressive, with a sense of sin ing of the chest; and an inability to supply the want is felt the chest. The pulse is now small, frequent, and feeble, t countenance shrunken and anxious, the surface cool or co and cold extremities, whilst the trunk is generally hot, warmer than natural. After several days, perhaps a week more from the commencement, if the bowels have not be evacuated, they are apt to give way spontaneously; tympan takes place, and the patient has frequent griping pains, frequent watery mucous discharges, tinged with blood. T tongue becomes dry, red, and fissured, the dorsum is cove with a dark fur, sordes collect about the teeth, soreness of throat, with difficult deglutition, sometimes occur, and patient lies on his bed with his legs drawn up. These sy toms may continue a few hours, or perhaps a few days, w stupor comes on, the pulse ceases to be felt at the wrist, death takes place, preceded by profound coma. A favor termination of the disease is marked by a gradual diminu of all the characteristic symptoms, until they disap though the convalescence is sometimes very tedious; a liability to relapses remain for a long time, which ma called into action by an over-meal, fatigue, excessive exer or exposure to either excessive heat or vicissitudes of tem ture.

But little is known in regard to the pathology. P opinion is so averse to post-mortem examinations that it is rare that a physician has the opportunity to make one. Graff says, in a woman who died of the disease he four flammation of the meninges, and congestion with soften the substances of the brain. The stomach was slightly co tracted, and the mucous membrane was reddened in pat there were a few ounces of bloody scrum in the peritonea ity, the liver deeply engorged, and darker than in heal and the gall-bladder was distended with bile. Dr. W Trafton, of Evansville, Ind., is stated by Dr. Byford to

:und inflammation of the mucous membrane of the stomach, :gid contraction of the pyloric orifice, a dry and hard condi-on of the feculent matter in the bowels, and a total absence intestinal gases. Dr. Dickey, in a case that died with all te symptoms of the disease, found, on opening the abdomen, te peritoneum was inflamed and gangrenous, the major cur-ture of the stomach was injected of a bright pink color;—te lesser curvature and orifices were pale—the contents re-sembled a chalk mixture intermingled with globules of oil.—This was olcum ricini, that had been taken during his illness. The mucous coat was much destroyed, and deprived of epithe-lm, there being an appearance of having suppurated through-ct its whole surface of the duodenum and stomach. Brun-r's gland was enlarged and red, but no signs of ulceration. Issing on to the jejunum, we found still more evidence of in-fnmatory action in this as well as the ilium; the mucous cat was easily separated by the finger nail, and the external s face of the latter presented flakes of white and green.—Iyer's patches were decidedly ulcerated. The contents of t cœcum were much the same as the ilium; the coats were fond to be all affected, of a muddy, dirty appearance, some p ts inclining to a green color. The large intestines con-tained much sulphuretted hydrogen. Colon in some parts rner pale, in other gangrenous. There was ramolissement o the liver. The border of the right lobe dark and indura-te, left lobe mottled. The lobus spigelii and quadratus quite n mal. The gall-bladder was much distended with a thick, te acious fluid. Mesenteric glands motley. The organs situ-a l in the thorax were healthy. By comparing the morbid a earances as here presented with those of the animal, we w find that the mucous coats of the stomach and intestines suffer most. Although the evidence here is not gleaned from many cases, yet those from the animal are founded on numer-ous dissections.

Prognosis.—This is a very grave disease. The physician should not promise too much: we cannot tell what amount of poison we have to deal with. When pressed for an opinion, give it cautiously. If the patient has a tolerably good consti-tution, and called early, it will generally end well.

Diagnosis.—The prominent diagnostic characters of milk sickness are: Violent and incessant vomiting, generally con-stipation, absence of bile in the matters discharged, a retract-ed state of the abdomen, and a hardened condition of the liver. The heart manifests a convulsive action, and excessive

palpitation of the abdominal aorta, throughout the course of the disease, distressing burning and sinking of the stomach and bowels. Great mental discomfort; an excessive and peculiar odor of the breath; and with these the evidence of encephalic or abdominal inflammation, and in bad cases a depraved state of the blood, and great nervous prostration.

Treatment.—Venesection has been but seldom employed in this disease, and should not be recommended only where the brain and its membranes appear to be affected. Cupping the abdomen and scrobiculus cordis may be used to an advantage. Cathartics are the remedies universally employed. We need not state the individual experience of physicians in regard to their use; both they and the people make the indication of opening the bowels the indication of cure, and affirm that when the bowels are freely moved the patient rapidly recovers. In the forming stages, catharsis is generally easy to be accomplished; after vomiting has commenced, the difficulty is greatly increased. We consider that when the bowels are freely moved in a severe case, our labors are only commenced. Our plan is this: Give from thirty to sixty grains of calomel;—and if the bowels are not moved within four hours, give oleum ricini, or an infusion of senna and epsom salts. If these do not have the desired effect within three or four hours more, use enemas composed of jalap, aloes, oleum ricini, and warm water; use them every hour until the bowels are moved freely. The calomel I give in sugar and water; if it is ejected, repeat every half hour until I get a dose to stay down. If the irritability of the stomach should continue very long, use sinapisms or epispastics; in some cases, a cloth dipped in cold water and applied to the scrobiculus cordis has a very sanative effect. The above course is persisted in and repeated every twenty-four hours, until the green, mossy appearance of the discharges is changed to a more biliary character. Experience has convinced me that it is perfectly useless to give calomel in alterative doses, in this disease; by giving it in cathartic doses, it will lie in the system long enough to have the alterative effect that is needed.

I am aware that there are some physicians opposed to the use of calomel in this disease, for what good reason I do not know. I have tried to get along without it, but found that I was losing valuable time, not being able to find any other cathartic that would remain long enough to do any good. We find the vitiated secretions and excretions collecting in the alimentary canal daily, until the poison is expelled from the

ystem; hence it is that it is so necessary to keep up a contin-ied regular action in the bowels, at the same time keeping the ecreting organs aroused to their normal action, or as near as ossible; at the same time we give stimulants during the vhole course of disease, if there is an indication for their use. We endeavor to keep the pulse up to 75 or 80 beats to the ninute; and if they flag much below that point, we give stim-ılants in appropriate doses, and repeat them according to the mergencies of the case; on the other hand, if the pulse is bove ninety beats to the minute, we withhold them, especial-y if they have much force about them, until it is brought lown to the normal standard, or a little below that point. If ve stimulate too freely while the pulse is up to 100 or more, ve most assuredly assist the disorganizing process already set ıp in the digestive tube or brain.

Some physicians pour the spirits into them without measure nd without caution, thinking that if they can get liquor en-ugh in them that their cases will get well; all such practice, o say the least of it, is reprehensible, and fraught with dan-er. It is true, some will get well under such practice,—some ill get well if nothing is done; so it is with the most of oth-r diseases, when the indisposition is slight. There is also variety of opinions advanced in regard to opiates; we give hem, occasionally, to allay the irritability of the stomach, and o procure rest.

Cold water is interdicted in this disease, and for what good eason I do not know; by allowing a portion of spirits to be dded to each draught, we may allow a moderate portion iven. An effervescing draught, composed of bicarb. soda nd tart. acid, with the addition of a small portion of spirits, ıay be used, which is very grateful to the patient, and has a oothing effect in allaying the intense burning in the stomach. The spirits we have used are New England rum, wine, French randy, alcohol. If we find that our patient appears to be nking, with cold extremities, we have found epispastics ap-lied to them to have a very good effect. If there is much erebral difficulty, we apply cold water freely to the head.—Dr. Toland has also subjected his patients to the cold dash, nd, he affirms, with apparent advantage. The diet must be ıild, and easy of digestion: panada, toast, broths, soup, chick-n-broth, etc. During convalescence the action of the bow-s must be kept up, and hearty meals avoided; but above ll, the patient must refrain from active exercise. When ıe recovery is slow, tonics are useful, especially chalybe-es.

The above is a brief summary of my views of the disease. Although I have given rather an outline course of treatment, there are often many other indications to be fulfilled, which the enlightened and energetic practitioner will readily perceive. We might have went on and discussed the "mineral theory," the "vegetable theory," etc., but it would not have proved anything different than what has already been advanced, and already expressed, in regard to the different cathartics recommended by different members of the profession. A great variety have been used; some use croton oil. Dr. Bruller gave sulphate of magnesia and whiskey, and considered nothing else necessary. Dr. J. W. Crooks, who avers he has not lost a single case for 15 years, used alcoholic drinks, morphine and blisters, to allay the vomiting, and states that if compelled to limit his choice to a single remedy, he would select whiskey. He thinks that alcohol neutralizes the poison, and in its tura neutralizes the alcohol, as it is almost impossible to produce intoxication. He prefers, for the cathartic effect, sulphate of magnesia and calcined magnesia. As stated before, we prefer calomel for a cathartic in milk-sickness, before any other and all other cathartics.

There is no disease that requires more prompt and close attention than the one under consideration. The physician should put in as near all his time at the bed-side as possible, so as to be on the alert whenever any change takes place. It is a disease that will not bear dallying with very long. If any of you wish to investigate any further, I would refer you to Wood's Practice of Medicine, fifth edition, p. 460; Dickey on Milk-Sickness, Western Lancet, vol. xiii., p. 390; Drake on Milk-Sickness, Western Journal of Medicine and Surgery, vol. iii., p. 161, which have been consulted in writing this essay.—*Lancet and Observer.*

THE CAUSE OF MILK-SICKNESS.

BY S. C. CHASE, M.D., Harmar, Ohio.

Messrs. Editors:—I find in the March number of your journal an address on the above subject, by Isaac Mendenhall, M. D., of Ashland, Ind. Nor was I aware until I saw his essay, that the cause of this malady was unknown, generally

to the medical faculty. I have been a practitioner fourteen years, during all of which time I have regared the cause of milk-sickness as easily traceable to its origin as the cause of ague, or any of the endemics; with this difference, that while the cause of endemics usually depend upon atmospheric conditions, the presence of miasmata, etc., the cause of milk-sickness depends upon the presence of vegetation, which abounds in certain localities only; for which reason the cattle of the fallow ground pasture field are exempt, while those of the adjacent inclosed wood pasture are trembling with the disease. In such wood pasture will be found the rhus toxicodendron growing every where among the grass, so that if the cattle eat grass they must also eat rhus. Notwithstanding instinct enables dumb animals to avoid some poisonous plants, yet in dry seasons cattle will devour the rhus with avidity, and have no objections to the foliage of the buckeye, the latter of which often produces as serious consequences (as far as the animal is concerned] as the former.

In the year 1841-2 I resided near the little village of Wyandot, in Marion County, O., during which time there were several cases of milk sickness in the neighborhood, some of which were fatal. The people, of course, were alarmed; milk, butter, and fresh meats, beef and veal were considered dangerous. As the excitement increased, the question with every body was, what is the cause? To solve the mystery, Dr. Brown, of Wyandot, and myself, commenced an investigation. In this undertaking I consider we were favorably located, as the surroundings were such as to afford us an ample opportunity to trace the effect to the cause, as there were but two places for the cattle to drink, and but three kinds of pasture; the first of which—viz: the inclosed, cultivated field, was exempt, while the contiguous inclosed, uncultivated wood pasture, and the prairie pasture contained the cause, as the cattle drank from troughs, supplied from wells, or at the Sandusky river, which is near the village. The water could not be the cause, as the cattle in the cultivated fields drank of the same water in both cases. As the cause was not atmospheric, we were forced to the conclusion that it was something which the cattle ate. After examining the whole premises carefully, and finding no other poisonous vegetable, we were satisfied that rhus was the cause of the disease,—in the texicology of which we believe the entire phenomena, as well as the pathological condition, (as present in milk-sickness,) will be found.

On breaking a stem of the rhus-leaf a milk-like fluid is exuded, which is exceedingly poisonous; if applied to the skin it will produce effects similar to those of argentum nitras, a black welt is produced, in a few hours becoming sore, destroys the cuticle, which sloughs, and upon healing leaves a circular cicatrice. So poisonous is rhus that it pollutes the atmosphere where it grows, so that children, as well as grown persons, who go among it to gather berries from bushes growing in the same locality, are badly poisoned. I have seen their faces swelled until their eyes were shut, their necks, hands and arms covered with inflamed vesicles, the cuticle highly inflamed, and not unfrequently constitutional symptoms produced, resembling those of milk-sickness. The nostrils of cattle that graze among it are covered with pustules. In fact, there can be no doubt that its poisonous exhalations are more to be feared than those of the fabled upas. Who can doubt that such quantities as are consumed by cattle must poison their blood, contaminate the milk, and be present in the butter, and produce all the symptoms enumerated by Dr. Mendenhall? That the milk and butter of such animals should be poisonous is in unison with the relation of cause and effect. And now, in summing up the evidence, we would respectfully present the following facts in the premises: First, there was no rhus in the cultivated field, (as cultivation destroys it,) and the cattle were not affected. Secondly, the contiguous wood pasture was covered with rhus, the cattle ate it, and were diseased. Thirdly, there was no other poisonous plant in either pasture. Fourthly, there was no water in either pasture, and the cattle inhaled the same air, except the atmosphere as impregnated by rhus. Will some of the physicians who reside where there is milk-sickness, please test the influence of rhus toxicodendrun, as the suspected cause, by penning up a few cattle and feeding them for a few days on rhus only, and report through your journal?—*Cin. Lancet and Observer.*

On the Treatment of Tetanus.—By Editor of 'Lancet.'—Of the different indications in the treatment of tetanus, besides the removal of any source of irritation, and the support of the general strength, but especially of the heart, two are prominently dwelt upon by writers, namely, to lessen the susceptibility of the nervous centres to any irritating influence

which may exist, and to diminish the irritation by means calculated to depress nervous excitement. To accomplish the first, Dr. Wood, of Philadelphia, thinks the weight of testimony is greatly in favor of opium, notwithstanding the contrary judgment of some distinguished authors. It has probably been employed, he asserts, as one of the remedies in the great majority of cases. It has failed like other remedial agents, but in many cases all prove ineffective. The liquid forms, from their more ready absorption, are to be preferred to the solid. The second indication is fulfilled by measures that have a sedative influence on the nervous system, and by those which act revulsively. Into these we do not propose to enter, but we may state that the tobacco enema (half a drachm to the half-pint of boiling water) is highly praised by Dr. Wood. It is to be repeated in an hour, and then every two or three hours, till the relaxing effects are produced. The nervous system is easily impressed by the influence of tobacco, as contrasted with opium; and we think that by-and-by, when the question has been thoroughly tested, it will be found that tobacco or its alkaloid, nicotine, is of greater value than many other remedies in tetanus. The revulsive plan consists in blisters or caustic applications to the whole length of the spine; or ice may be advantageously employed. The latter remedy is asserted to have been the means of cure in sixteen out of seventeen cases under the care of Dr. Carpenter, of Suffolk county, New York.—*Lancet, Dec.* 6, 1860, *p.* 560.

The Lamp Bath.—The following is a very simple and most effectual method of exciting the functions of the skin. Let the patient, in *puris naturalibus*, be seated on a common wooden chair with his feet upon a low stool the body then enveloped in two or three blankets, the head being excluded, and a large spirit-lamp placed under the seat. In about a quarter of an hour, the perspiration streams down the skin.—After a time the blankets must be removed, and the patient subjected to a douche of two pailsful of cold water, and then dried with much friction. After which a smart walk may be taken. (Dr. C. Taylor, p. 282.)

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

ANNOUNCEMENT FOR 1861-2.

The Trustees and Faculty announce, with much pleasure, the organization of this College, with a corps of thirteen Professors, and a full course of Lectures during the next autumn and winter.

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N. R. Mosely, M.D., Prosecutor to Chair of Surgical Anatomy.
Sylvester Teats, M. D, Prosecutor to Chair of Operative Surgery, and Surgical Pathology.

PRELIMINARY TERM.

A preliminary term will commence on Wednesday, Sept. 18, 1861, and continue until the beginning of the regular term. In addition to daily instruction in the hospital wards, and clinical lectures, at least three lectures will be given daily on subjects of practical importance, by members of the Faculty, during this term. Among the subjects which will be taken up during the preliminary term are the following:—Organic Affections of the Uterus, by Prof. Taylor;—Uterine Displacements, by Prof. Barker; Inflammatory Diseases of the Uterus and Appendages, by Prof. Elliot; the Thoracic Viscera, by Prof. Childs; Auscultation and Percussion, by Prof. Flint; Syphilis, by Prof. Hamilton; Surgical Affections of the Genito-Urinary Apparatus, by Prof. Wood; Endosmosis and Exosmosis, with their Practical Applications, by Prof. Doremus.

The attention of students and practitioners is invited to the variety and practical importance of the subjects which will be treated of during the preliminary term. Although attendance is not required on the part of the student, it is designed to render this term not a nominal, but an actual extension of the period of instruction.

Dissections may be prosecuted during this term as well as during the whole of the regular term.

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ORIGINAL COMMUNICATIONS.

PURULENT OPHTHALMIA OF ARMIES.

BY E. L. HOLMES, M. D., of Chicago.

Comparatively few members of the profession in this country have acquired extensive experience in the practice of Military Surgery, and, probably, for this reason our medical writers have contributed little to enrich the literature of this branch of our science. Until very recently scarcely a single valuable work upon the subject had been produced by an American author.

Although the works recently published will undoubtedly be of great benefit to surgeons so suddenly called without previous experience in camp life, to watch over the health of our soldiers and treat the diseases and injuries peculiar to them, we apprehend neither the present nor the future wants of the military surgeon will be wholly supplied by these manuals. They have evidently been hastily prepared for the

sudden emergencies in which the surgeons of our volunteer regiments are placed, and are undoubtedly, under the circumstances, as comprehensive as could have been expected. The great increase in the number of soldiers, however, which the necessities of the country may for some time require, will but too soon, we fear, furnish an extensive field of observation and practice, which will enable our military surgeons to supply, if they choose, this deficiency in American medical literature.

Among the subjects which have been neglected in the treatises already published, we would mention "Ophthalmie Militarii" or "Purulent Ophthalmia of Armies." And yet this is one of the most important matters to which the attention of the military surgeon can be directed. Any one who is acquainted with certain facts in the history of military hygiene in the European armies during the past seventy years, must be convinced of the truth of this statement. For these facts we would refer to the various standard works on Diseases of the Eye, especially that of Lawrence, and several excellent monographs published on the continent of Europe.

It is reported officially that in the year 1830, one-eighth o the Belgian army was disabled with this disease, and in 184(there were 5000 cases in the army consisting of 50,000 men More than *one hundred thousand* cases had been reported i the Belgian army since the first appearance of the disease In some regiments more than one-half of the soldiers wer affected.

Within the space of eight years 30,000 cases occurred i the Prussian army.

In the year 1812, 1500 cases occurred in the garrison o Ancona.

From the reports of two English hospitals, it appears tha in Dec., 1810, 2317 soldiers were a burden to the public fron blindness produced by ophthalmia, and that a large number i addition had lost one eye.

Dr. Vetch informs us that in the 2d battalion of the 52(

numbering about 700 men, 636 cases of purulent ophthalmia occurred in one year.

Assalini states that two-thirds of the French army were affected at one time.

Official reports abound in accounts of the ravages of this terrible disease in hospitals, in fortresses, on board ship and in schools; but we need not multiply examples.

Well might the subject have deeply interested the European governments when so large a proportion of their soldiers were disabled, and, in too many instances, thrown upon public charity, blind and dependant for life. In view of the disastrous effects of this disease, several governments offered prizes for the best essays upon the subject, and appointed at different times boards of commissioners, composed of the most experienced Ophthalmologists, to investigate its causes, treatment and prevention.

We see little reason for supposing our own armies will not suffer to a greater or less extent from this evil. There will probably be for months, if not for years, not less than 400,000 troops in the armies of the Federal Government. From exposure, improper food and insufficient dress, evils incident to military operations, these men will be peculiarly liable to nearly every form of disease.

As is well known by experienced physicians, who have practised in the South and West, Ophthalmia is often epidemic in certain localities, in which portions of our army will be in active service. It should be remembered by the military surgeon, that whenever even a single soldier in a regiment is affected with this disease, it is almost inevitably communicated by contagion to his comrades. This takes place not only by direct contact through carelessness in the use of towels and general neglect as regards habits of cleanliness, but also, as some writers believe, by the influence of the atmosphere of tents and barracks impregnated with particles of purulent matter.

We may seem to our readers inclined to seek danger and

trouble where none exist. The remarkable facts, however, in the history of European armies, above given, certainly show that there are good grounds for fear. An intelligent surgeon of this State has lately informed us that several cases of severe Ophthalmia have already appeared in the regiment under his charge.

Upon the care and skill of our surgeons in treating Purulen Ophthalmia, will depend, we believe, the services of a larg number of our soldiers. Upon this same care and skill wil depend whether those soldiers affected with this disease sha be restored to health or returned home blind and dependen upon friends or the public for support. As a matter of publi economy, to say nothing of humanity, every effort should b made to preserve the health and thereby the efficiency of th army, but also to reduce the present expense of maintaining large number of invalids and the future expense of supportin the blind; the Government should therefore endeavor appoint such surgeons only as are in all respects competent fill so important positions.

It is not our present purpose to attempt to supply a deficiency on the particular point in question which may occ in our works on Military Surgery. We propose at some futu time to offer the readers of the JOURNAL, if desired, a pap on Conjunctivitis as it prevails in the Northwest. We ha been much interested for the past few years in collecting fa relative to this troublesome disease, which we trust will prove wholly uninteresting to the profession at large.

We wish, however, to offer a single suggestion, which consider of much practical value in reference to the mode applying strong caustic solutions to the eye in the early sta of Purulent or Catarahal Ophthlmia. We are fully convinc that many physicians often fail to cut short these diseases applying solutions of insufficient strength and also do dir injury by improper modes of applying the stronger solutio In a large proportion of uncomplicated cases, when the flammation is confined principally to the palpebral conjuncti

endering them highly vascular and œdematous, we consider he use of solutions of argenti nitras, varying in strength from ℈j ℈ij or even ℈iiss to the ounce of water, as most reliable, *provided they are properly applied.* We never drop such ollyria under the lids, for, thus introduced, they are to a ertain extent neutralized by the salts of the secretions and prevented from passing equally over the whole surface of the conjunctiva by the spasmodic contraction of the lids.

To the conjunctiva of both lids exposed as much as possible by inverting the upper lid and drawing down the lower lid, ve first press gently a piece of dry linen for the purpose of removing all moisture and mucous. Upon the whole surface hus prepared we paint some one of the solutions above mentioned by means of a large but short camel's hair, *horoughly moistened* in the solution and yet *not saturated* vith it. The brush should be passed freely over the surface ill the whole conjunctiva presents the characteristic white appearance produced by Argenti Nitras, after which the moisture should be again removed with the linen and the lids returned to their natural position. One application of this kind a day is usually sufficient. The stronger the solution, he less freely it should be applied to the inflamed surface.

We have followed this method with such good results in so many cases that we would recommend it to all who have never tried it, where strong caustic solutions are indicated.

In conclusion, we would again urge upon our Military Surgeons the careful consideration of this subject. We would remind them of the necessity of prompt treatment in the very earliest stages of the disease, and of immediate isolation of affected soldiers.

A new field of observation is undoubtedly open to members of our profession, and whoever will collect the most reliable facts regarding the causes, progress and treatment of Ophthalmia as found in our armies, will perform an important work for the profession and secure for himself an enviable reputation.

CASE OF AMPUTATION.

Henry Euslin, a resident of Iroquois, Ill., aged 66 years, and of scrofulous habit, received an injury of the left ankle joint jumping from a carriage. The foot and ankle become swollen and painful. Domestic remedies were used for nearly two months, when a large sloughing ulcer presented at the heel. A physician was now called and constitutional treatment brought to bear on the sore heel, but without relief.

I visited the patient for the first time in February, 1861. I found him emaciated, having diarrhœa, and suffering considerable pain. The foot and ankle were studded with fistulous openings discharging offensive matter; the tendoachillis, muscles of the heel, and posterior ligaments of the ankle joint were completely destroyed, leaving the os-calcis, tibia and fibula exposed. I spoke of amputation as the only chance for relief, but did not recommend it, owing to the exhausted condition of the patient.

March 2—Visited the patient in company with Drs. Barry, Fowler and Dunn. After stating to the patient and family, the certainty of death without, and the chance of recovery with, an operation, consent was given and the operation performed. Chloroform was given as an anæsthetic, and the limb amputated in its upper third just below the tuberosity of the tibia. The usual dressings were applied, and brandy and opium given during the remainder of the day and night.

March 5—The patient has rested very well since the operation; no pain in the stump; pulse 80; the flaps of the wound lying against each other without any adhesion, or evidence of inflammation. Ordered, in addition to brandy and opium, quinine and beef-tea.

March 6—Pulse 80; suppuration of the stump; discharging unhealthy pus. Ordered the stump washed with tinct-myrrh and covered with pulv. charcoal.

March 9—Patient exhibits signs of exhaustion; the surface covered with cold perspiration, and the wound discharging a large amount of offensive matter; the extremity of the tibia is exposed. Continue the same treatment, with increase of brandy.

March 12—Patient thirsty, skin hot, pulse 90; the stump inflamed and painful for the first time since the operation.

March 15—The discharge from the stump is considerably diminished, and there is some appearance of healthy granulation. Continue the same local and constitutional treatment as before.

April 15—The daily notes of the case since March 15th contain nothing of interest or importance. The wound, owing to the impaired condition of the system, healed slowly. The patient is improving in general health, and the wound is nearly cicatrised.

The above case, I think, is one of interest, considering the advanced age and extreme debility of the patient at the time of the operation. I do not offer it, however, as an anomaly; but, from the fact that I have been censured (for operating) by a few meddlesome people, some of whom claim to belong to the Medical Profession.

L. B. BROWN, M. D., Iroquois, Ill.

SELECTED.

DIRECTIONS TO ARMY SURGEONS ON THE FIELD OF BATTLE.

BY G. J. GUTHRIE,

Surgeon-General to the British Forces during the Crimean War.

[From his Pamphlet on the Hospital Brigade.]

1. Water being of the utmost importance to wounded men, care should be taken when before the enemy, not only that the barrels attached to the conveyance-carts are properly filled with good water, but that skins for holding water, or such other means as are commonly used in the country for carrying it, should be procured and duly filled.

2. Bandages or rollers, applied on the field of battle are, in general, so many things wasted, as they become dirty and stiff, and are usually cut away and destroyed, without having been really useful; they are therefore not forthcoming when required, and would be of no use.

3. Simple gun-shot wounds require nothing more, for the first two or three days, than the application of a piece of wet or oiled linen, fastened on with a strip of sticking-plaster, or, if possible, kept constantly wet and cold with water. When cold disagrees, warm water should be substituted.

4. Wounds made by swords, sabres, or other sharp-cutting instruments, are to be treated principally by position. Thus, a cut down to the bone, across the thick part of the arm, immediately below the shoulder is to be treated by raising the arm to or above right angle with the body, in which position it is to be retained, however inconvenient it may be. Ligatures may be inserted, but through the skin only. If the throat be cut across in front, any great vessels should be tied, and the oozing stopped by a sponge. After a few hours, when the oozing is arrested, the sponge should be removed, and the head brought down towards the chest, and retained in that position without ligatures; if this is done too soon, the sufferer may possibly be suffocated by the infiltration of blood into the areolar tissue of the parts adjacent.

5. If the cavity of the chest is opened into by a sword or ance, it is of the utmost importance that the wound in the skin should be effectively closed, and this can only be done by sewing it up as a tailor or a lady would sew up a seam, skin only being included; a compress of list should be applied over the stitches, fastened on by sticking plaster. The patient s then to be placed on the wounded side, that the lung may fall down, if it can, upon, or apply itself to the wounded part, and adhere to it, by which happy and hoped-for accident life will in all probability be preserved. If the lung should be seen protruding in the wound, it should not be returned beyond the level of the ribs, but be covered over by the external parts.

6. It is advisable to encourage previously the discharge of blood from the cavity of the chest, if any have fallen into it; but if the bleeding from within should continue, so as to place the life of the sufferer in danger, the external wound should be closed, and events awaited,

7. When it is doubtful whether the bleeding proceeds from the cavity of the chest, or from the intercostal artery (a surgical bugbear), an incision through the skin and the external intercostal muscle will expose the artery close to the edge of the rib having the internal intercostal muscle behind it. The vessel thus exposed may be tied, or the end pinched by the forceps, until it ceases to bleed. Tying a string round the ribs is a destructive piece of cruelty, and the plugs, &c., formerly recommended, may be considered as surgical incongruities.

8. A gun-shot wound in the chest cannot close by adhesion, and must remain open. The position of the sufferer should therefore be that which is most comfortable to him. A small hole penetrating the cavity is more dangerous than a large one, and the wound is less dangerous if the ball goes through the body. The wounds should be examined and enlarged, if necessary, in order to remove all extraneous substances, even if they should be seen to stick on the surface of the lung if the opening should be covered with soft oiled or wet lint—a bandage when agreeable. The ear of the surgeon and the stethoscope are invaluable aids, and ought always to be in use; indeed, no injury of the chest can be scientifically treated without them.

9. Incised and gun-shot wounds of the abdomen are to be treated in *nearly* a similar manner; the position in both being that which is most agreeable to the patient, the parts being relaxed.

11. In wounds of the bladder, an elastic catheter is generally necessary. If it cannot be passed an opening should be made in the perinæum for the evacuation of the urine, with as little delay as possible.

12. In gun-shot fractures of the skull, the loose broken pieces of bone, and all extraneous substances, are to be removed as soon as possible, and depressed fractures of bone are to be raised. A deep cut made by a heavy sword through the bone into the brain, generally causes a considerable depression of the inner table of the bone, whilst the outer may appear to be merely divided.

13. An arm is rarely to be amputated, except from the effects of a cannon-shot. The head of the bone is to be sawn off, if necessary. The elbow-joint is to be cut out, if destroyed, and the sufferer, in either case, may have a very useful arm.

14. In a case of gun-shot fracture of the upper arm, in which the bone is much splintered, incisions are to be made, for the removal of all the broken pieces which it is feasible to take away. The elbow is to be supported. The forearm is to be treated in a similar manner; the splints used should be solid.

15. The hand is never to be amputated, unless all or nearly all its parts are destroyed. Different bones of it and of the wrist are to be removed when irrecoverably injured, with or without the metacarpal bones and fingers or the thumb; but a thumb and one finger should always be preserved when possible.

16. The head of the thigh bone should be sawn off when broken by a musket-ball. Amputation at the hip-joint should only be done when the fracture extends some distance into the shaft, or the limb is destroyed by cannon-shot.

17. The knee-joint should be cut out when irrecoverably injured; but the limb is not to be amputated until it cannot be avoided.

18. A gun-shot fracture of the middle of the thigh, attended by great splintering, is a case for amputation. In less difficult cases, the splinters should be removed by incisions, particularly when they can be made on the upper and outer side of the thigh. The line should be placed on a straight, firm splint. A broken thigh does not admit of much, and sometimes of no extension, without an unadvisable increase of suffering. An inch or two of shortening in the thigh does not so materially interfere with progression as to make the sufferer regret having escaped amputation.

19. A leg injured below the knee should rarely be amputated in the first instance, unless from the effects of a cannon-shot. The splinters of bone are all to be immediately removed, by saw or forceps, after due incisions. The limb should be placed in iron splints, and hung on a permanent frame, as affording the greatest comfort, and probable chance of ultimate success.

20. An ankle-joint is to be cut out, unless the tendons around are too much injured, and so are the tarsal and metatarsal bones and toes. Incisions have hitherto been too little employed in the early treatment of these injuries of the foot for the removal of extraneous substances.

21. A wound of the principal artery of the thigh, in addition to a gun-shot fracture, renders immediate amputation necessary. In *no other part* of the body is amputation to be done in the first instance for such injury. Ligatures are to be placed on the wounded artery, one above, the other below the wound, and events awaited.

22. The occurrence of mortification in any of these cases will be known by the change of color in the skin. It will rarely occur in the upper extremity, but will frequently do so in the lower. When about to take place, the color of the skin of the foot changes, from the natural flesh color to a tallowy or mottled white. Amputation should be performed immediately above the fractured part. The mortification is yet local.

23. When this discoloration has not been observed, and the part shrinks, or gangrene has set in with more marked appearances, but yet seems to have *stopped* at the ankle, delay is, perhaps, admissible, but if it should again spread, or its cessation be doubtful, amputation should take place forthwith, although under less favorable circumstances. The mortification is becoming, or has become constitutional.

24. Bleeding, to the loss of life, is not a common occurrence in gun-shot wounds, although many do bleed considerably, seldom, however, requiring the application of a tourniquet as a matter of necessity although frequently as one of precaution.

25. When the great artery of the thigh is wounded (not torn across), the bone being *uninjured*, the sufferer will probably bleed to death, unless aid be afforded, by making compression above, and on the bleeding part. A long, but not broad stone, tied sharply on with a handkerchief, will often suffice until assistance can be obtained, when both ends of the divided or wounded artery are to be secured by ligatures.

26. The upper end of the great artery of the thigh bleeds scarlet blood, the lower and dark venouscolored blood; and this is not departed from in a case of accidental injury, unless there have been previous disease in the limb. A knowledge of this fact or circumstance, which continues for several days, will prevent a mistake at the moment of injury, and at a subsequent period, if secondary hæmorrhage should occur. In the *upper* extremity both ends of the principal artery bleed scarlet blood, from the free collateral circulation, and from the anastomoses in the hand.

27. From this cause, mortification rarely takes place after a wound of the principal artery of the arm, or even of the arm-pit. It *frequently* follows a wound of the principal artery in the upper, middle, or even lower parts of the thigh, rendering amputation neccessary.

28. It is a great question, when the bone is *uninjured*, where, and at what part, the amputation should be performed. Mortification of the foot and leg, from such a wound, is disposed to stop a little below the knee, if it should not destroy the sufferer; and the operation, if done in the first instance, as soon as the tallowy or mottled appearance of the foot is observed, should be done at that part; the wound of the artery, and the operation for securing the vessel above and below the wound, being left unheeded. By this proceeding when successful the knee-joint is saved, whilst an amputation above the middle of the thigh is always very doubtful in its result.

29. When mortification has taken place from any cause, and has been arrested below the knee, and the dead parts show some sign of separation, it is usual to amputate above the knee. By not doing it, but by gradually separating and removing the dead parts, under the use of disinfecting medicaments and fresh air, a good stump may be ultimately made, the knee-joint and life being preserved, which latter is frequently lost after amputation under such circumstances.

30. Hospital gangrene, when it unfortunately occurs, should be considered to be contagious and infectious, and is to be treated locally by destructive remedies, such as nitrid acid, and the bivouacking or encamping of the remainder of the wounded, if it can be effected, or their removal to the open air.

31. Poultices have been very often applied in gun-shot wounds, from laziness, or to cover neglect, and should be used as seldom as possible.

32. Chloroform may be administered in all cases of amputation of the upper extremity and below the knee, and in all

minor operations; which cases may also be deferred, without disadvantage, until the more serious operations are performed.

33. Amputation of the upper and middle parts of the thigh are to be done as soon as possible after the receipt of the injury. The administration of chloroform in them, when there is much prostration, is doubtful, and must be attended to, and observed with great care. The question whether it should or should not be administered in such cases being undecided.

34. If the young surgeon should not feel quite equal to the ready performance of the various operations recommended, many of them requiring great anatomical knowledge and manual dexterity (and it is not to be expected that he should), he should avail himself of every opportunity which may offer of perfecting his knowledge.—*Lancet.*

EFFECTS OF CLIMATE ON NORTHERN AND SOUTHERN CONSTITUTIONS.

Public health is public wealth. This short aphorism has, with the advance of sanitary science, acquired a meaning which political economists of the last century hardly dreamed of. But the preservation of the public health in time of peace is not more important to the State than is the sanitary condition of its armies in time of war. The health of an army is the strength thereof. A recognition of this fact by the Federal Government is apparent in the appointment of a Sanitary Commission, whose duty it shall be to establish a proper surveillance over the troops in camp and in the field, to adopt such measures as will place them in the best condition to resist the influences which affect their health, to see that their food, clothing, &c., are proper and sufficient, and that nothing shall be present to weaken the efficiency of the force from causes affecting the health of our soldiers.

The effects of a Southern climate upon the Northern constitution is a subject which will particularly attract the attention of this Commission. Whatever these effects may be, they can be mitigated in a great measure by the acts of this Commission, the concerted aid of the medical officer of the corps, and the intelligent understanding of the subject by the soldier himself.

Comparing the Northern soldier with the Southern, we believe the former will withstand the effects of the climate for a short campaign of a year or more better than the latter; and though the popular belief is divergent to this view, the statistics of our war with Mexico fully sustain it, and the published opinion of no less an authority than Dr. Nott, of Mobile, in the *Southern Journ. of Med. and Pharmacy*, for January, 1847, confirms it.

The statistics of the Mexican War are so remarkable, that we present them as we find them, given in a recent number of the *Evening Post*:

On April 8th, 1848, the Secretary of War made a report to the United States Senate of the losses of the volunteer forces employed in Mexico. From this, it appears that seven Northern States—Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois—furnished, in the course of that war, 22,573 men. Of this force, the total loss from disease was 2,931 men; less than one-eighth of the whole. Nine slave States—Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Tennessee and Kentucky—furnished 22,899 men. The loss from this force by disease, was 4,315, or more than one-fifth; a very considerable difference in favor of Northern troops.

When we go into particulars, we find that Massachusetts lost, of 1,047 men, but 61 by disease; while South Carolina, furnishing 1,054 men, or seven more than Massachusetts, lost not less than 338 by disease. Mississippi lost 769 men by disease, out of 2,319; while Indiana, furnishing nearly double the number, namely, 4,470, lost only 768. Georgia lost 362 men by disease, out of 2,047, while New York lost but 188 of a total of 2,665. North Carolina sent 936, and lost 233; while New Jersey sent 424, and lost but 12. Pennsylvania sent 2,464, and lost 411; Mississippi lost 769 out of 2,319. Illinois furnished 5,973 men, and lost 850; while Tennessee furnished only 3,011; Arkansas, 136 of a force of 1,323; rather more than ten per cent. in each. Kentucky lost 709 out of 4,800; but Ohio, sending 5,530, lost but 642. The Texan troops, fighting in a country to whose circumstances and climate they were thoroughly accustomed, lost yet more by disease than the Missourians, who came there from the cold North. Of 7,313 men, Texas lost 360 by disease; while of 6,753 Missourians, only 342 were thus lost.—*Am. Med. Monthly.*

GUNSHOT WOUNDS PRODUCED DURING THE LOADING OF ARTILLERY.

Dr. Cortese relates five cases of gunshot wounds received by artillerymen while engaged in loading their guns, and gives the following summary of his observation: 1. No other blow of a projectile imparts like the present so great an amount of commotion to the entire limb. The state of muscular contraction prevailing at the time constitutes a kind of solidarity between the hand, forearm, and arm, which is the chief and necessary cause of this commotion. 2. This circumstance complets the surgeon to direct his attention to the entire limb, whatever amount of lession may be manifest in the hand. A neglect of this precept may lead to gangrene gaining possession of a large portion of the limb, or to a generalized suppuration, while a diminished power of reaction in the injured parts may give rise to purulent infection, or render useless recourse to amputation. 3. In all those cases in which the hand is severely torn, its disarticulation, or even the amputation of the forearm, is insufficient to secure recovery. The surgeon's knife penetrates into infiltrated tissues, more or less destroyed in their intimate structure in consequence of the concussion they have been subjected to. So that independently of the fracture of the bone, and of the possible disunction of the articulations of the ulna, the success of the reparative process would be very problematical. In such cases the arm should be amputated. 4. The sooner amputation is performed, the greater is the propability of a favorable result. 5. The rapid and very extensive tumefaction of the limb constitutes a sufficiently certain criterion of the severity of the derangements which are propagated along its whole extent. When fractures are not detected in the diaphysis of the bone, some lesion of contiguity or continuity in the ulnar articulation must be suspected. 6. When the lesion does not seem severe enough to call at once for amputation, we must always be prepared for secondary occurrences which will unfit the limb for its functions. (In two of the author's cases, paralysis of the limb remained.) Still, conservative treatment in such cases should be attempted.—*Brit. & For. Med.-Chirurg. Rev.*, April, 1861, from *Omodei Annali Univ. di Med.*, vol. clxxiv.

ON THE ANTAGONISTIC EFFECTS OF OPIUM AND SULPHATE OF QUINIA.

BY NELSON NIVISON. M. D., of Hector, Schuyler County, New York.

That opium and quinia, when administered "simultaneously" as remedies, react upon each other, and to some extent counteract each other, is a fact which appears recently to have arrested the attention of numerous observers. Though we are prepared to admit that in a qualified sense they are "antidotes to each other," each neutralizing the *bad effects* of the other, we cannot subscribe to the rule lately laid down by Dr. Gubler, that "they ought not to be administered simultaneously." *

We claim, on the contrary, that it is precisely in virtue of the fact that these remedies do react upon each other when simultaneously administered, that the happiest therapeutic results are often produced, differing essentially from the action of either.

So true is this, so important the principle involved, so extensive its range of application, so certain and satisfactory the results, that it is believed that few of the recent improvements in practical therapeutics, have added more largely to our resources than that derived from the *combined* action of these remedies.

At the present time, perhaps no two remedies enter more largely into the general therapeutics of this country than the preparations of bark and opium. There is scarcely a disease in which their virtues have not been tested, often by many and able observers. Some of their properties have been determined with a certainty that amounts to absolute demonstration, others have now won the confidence of a majority of the profession, while other claims put forth with equal assurance have as yet failed to secure that confidence which a frequent use would necessarily imply.

Under such circumstances, any investigation which promises clearer light in regard to the properties and remedial effects of agents so powerful as these, can but be a matter of interest

* Journal des Connaissances Med. et Pharmaceutique, Aug. 30, 1858.

not alone to the medical philosopher, but especially to those who assume the practical duties of the healing art.

Before proceeding to the discussion of the conjoint action of opium and quinine, it may be well to notice some of the phenomena produced by their *separate* action.

Perhaps we cannot give the general and more obvious effects of opium better than to quote Dr. Gubler. He says: "Opium carried into the circulation induces a particular excitement, gives volume to the pulse, exalts the temperature, augments the capillary injection of the skin, and excites diaphoresis." To this we may add that while operating thus on all parts of the system it is sometimes directed with peculiar force to the brain, often producing intoxication or delirium. This is usually followed by an agreeable mental placidity, and soon all consciousness is lost in sleep.

With Dr. Gubler, we will say of quinia that its effects on the circulation are inversely to those of opium. It gives tone, or contractility to the capillaries, and thus overcomes congestion. It is anti-periodic and sedative. As incidents of its operation, we have various phenomena which indicate that it often produces great disturbance of the nervous centres.

But no mere outline of this character will give to the inquiring student an adequate idea of either the *modus operandi*, the physiological, or therapeutic effects of these articles.

'Tis the latter only which, on the present occasion, chiefly interest us. And it is only by studying their relation to certain pathological conditions that we shall be likely to arrive at a definite understanding of them.

Of their physiological effects we will simply say that both opium and quinia have a powerful affinity for the nervous system, each impressing it in a manner peculiar to itself and through its agency modifying the action of every organ in the performance of its function. Whether, as has been assumed, opium acts through the cerebro-spinal, and quinia the ganglionic system it is now our purpose to inquire.

That quinia has a powerful affinity for the nervous system we think will hardly be questioned. If any doubt should exist, the fact, we conceive, admits of demonstration. It is a law of the animal economy that no function can be performed without loss of substance. Muscular motion implies a loss of fibrin, and any activity of the brain and nervous system involves a corresponding metamorphosis of their tissues. The waste of nerve-tissue, or, in other words, the activity of

the function of innervation, is easily calculated, being in direct ratio to the sum of the phosphates found in the urine.

From carefully conducted experiments it appears that quinia given in a state of health augments the amount of the phosphates, and consequently increases nervous action.

But it is in morbid states of the nervous system that the more striking effects of quinia are exhibited. Dr. Ranke (*Med. Times and Gazette*, May 30th, 1857,) while conducting a series of experiments for determining the effects of ague and quinia on the urine, ascertained that the paroxysm of fever greatly increased the amount of phosphoric acid. Showing most clearly that the nervous system plays an important part in the paroxysm of ague. Dr. Hammond (*Am. Jour. Med. Sci.*,) found, while experimenting on himself during an attack of intermittent, that, on the day of the first paroxysm, the amount of phosphoric acid found in the urine was 69.18. Next day (intermission), 52.95. Third day (paroxysm), 72.95. Fourth day (intermission), 55.27. On this day, quinia was administered. The next day, being the one for the paroxysm, and when the amount of phosphoric acid, calculating from the average of the preceding days, would have been 71.06, it fell to 56.22—but a trifle above that excreted on the days of intermission.

But rapid disintegration of nerve-tissues is not confined to intermittents. It is usually a prominent element in nearly all the severer forms of fever. The general debility and non-performance of function are, doubtless, due to this cause. Continued experiment led Dr. Hammond to the conclusion that "Quinia has the power to prevent much of this great waste of nerve-material." We will add that it not only prevents destruction of nerve-tissue, but, by its well-known effects on the function of nutrition contributes greatly to the *reparative* process. It may, therefore, be justly entitled a great conservator of the nervous system in conditions of febrile excitement or nervous prostration.

But the influence of quinia is not confined to the nervous system. It has important relations to the circulation, and the character and quality of the blood. Headland believes "that its action is exerted primarily on the blood and not on the nerves." We will not discuss the question on the present occasion, nor is it necessary to our present purpose. All the vital functions are so intimately connected that no one is independent of all the rest.

The more obvious and important effects of quinia will alone be noticed; and among these, none is of so much importance, as its power of giving contractile action to the cappillaries.

This power appears to extend to all parts of the capillary system. Dr. Corrigan, Physician in Ordinary to the Queen in Ireland, says: "Quinia appears to possess the same power in giving contractility to the capillaries in the lungs which we know it possesses in so marked a degree over the capillaries and venous radicles in the spleen."

This property of quinia gives us a power over almost all forms of venous and capillary *congestion* which, perhaps, it is impossible to obtain by any other known agent.

Another effect of quinia on the circulation is that of approximating the frequency of the pulsations to the healthy standard, when much too frequent or much too slow.

We may incidentally mention that quinia enters the blood-vessels, and goes the rounds of the circulation. Tiedeman and Gmelin found it long ago in the blood of a patient to whom it had been administered, and if we needed further confirmation, we have it in the fact that from three to twelve hours after its administration it will appear in the urine. Dr. Bence Jones, M. Briquet, and many other authorities might be quoted on this point.

Quinia not only influences the circulation, but it works important changes in the character of the blood itself. We have already had occasion to notice its influence on the phosphates. Its action in diminishing the amount of uric acid is still more striking. Dr. Ranke experimented on three healthy individuals. He found that under the influence of quinia the amount of uric was reduced nearly one-half. Dr. Hammond made a series of observations during an attack of intermittent fever, where, as in all fevers, the amount of uric acid is greatly increased. Here, likewise, the quality was promptly reduced more than half by the action of quinia.

But perhaps the most remarkable effect of quinia on the blood is the fact that it *defibrinates* it, and renders it fluid and uncoaguable. This fact, mentioned by Dr. Samuel Gordon in the *Dublin Quarterly* for August, 1856, and clearly established by the experiments of Baldwin, Melier, Briquet, and other responsible authorities, may throw some light on its action in preventing and overcoming congestion, and subduing many forms of inflammation.

The diseases to which quinia is specially adapted usually contain an important neuropathic element. The innervation may be either deficient, irregular, or excessive; all, however, imply the existence of, or ultimately produce nervous debility. Many derangements of circulation, nutrition, secretion, sensa-

tion, and muscular motion, are included as sequelæ. An example of excessive innervation is manifest in precocious children. The vivacity, intellectual and moral development indicate a degree of nervous activity altogether disproportioned to the restorative or nutritive function. Early decay is the result.

The diseases accompanied with derangement of circulation are attended with general or local congestions. Conspicuous among them are the intermittent, remittent, continued, and pernicious fevers, and many diseases usually regarded inflammatory. Derangements of secretion, excretion, and calorification, follow in the train of disordered circulation, and imply disturbance of the ganglionic system.

Quinia is also adapted to many diseases originating in the cerebro-spinal system, as chorea, neuralgia, &c.

Of the general properties of opium, the "antagonist" of quinia, we shall speak very briefly.

One of the most important properties of opium is that of a general stimulant to the vital powers. Says Mr. Skey, the eminent Surgeon of St. Bartholomew's Hospital: "There is no drug, simple or composite, known to our pharmacologists, that possesses an equal power with opium in giving energy to the capillary system of arteries, of promoting warmth, and thus maintaining an equable balance of the circulation throughout the body,"

The property of opium, that of *equalizing the circulation* is an invaluable one. There is scarcely a pathological condition in which it is not desirable, and without this agent sometimes difficult or impossible to obtain.

Opium not only accelerates the circulation when it is feeble but it moderates it when excessive. This may appear paradoxical, but we think it admits of a ready solution. The circulation is subservient to innervation. While the nervous system maintains its tone, the disturbing cause must be very considerable or long continued, or the circulation will remain uninfluenced. When in an atonic condition, very slight irritating or exciting causes will hurry the circulation. We believe a rapid pulse always implies deficient innervation. Opium is a direct stmulant of the nervous system; it supplies for the time being the necessary power of resistance to the nervous centres, the effect of the disturbing cause is neutralized, and the circulation regains it equilibrium.

Another remarkable property of opium is the effect it has over the nutritive or reparative function. We see illustratio

of this in the fact that *old ulcers* which have resisted all other means of treatment will readily heal when the system is brought under the influence of that drug. Its effects on obstinate chancres, senile gangrene, chilblains, &c., are examples in point.

A point that demands a passing notice is the general *derivative* effect of opium. By determining to the surface, internal parts are relieved of undue accumulations. In this way we can often spare the system the irritation and exhaustion that would result from counter-irritants.

We will mention still another point of great practical value, and that is the property which opium possesses of *retarding the too rapid metamorphosis of the tissues.* This enables us to maintain the integrity of the organism in exhausting fevers, wasting discharges, long-continued exposure to cold, or any protracted mental or physical suffering.

The more familiar effects of opium in removing pain, allaying irritation, procuring sleep, &c., we have not space here to notice. Enough has been written, we trust, to render it apparent that a multitude of pathological conditions demand the benefit of its influence. It is not only adapted to the inert condition of the remote vascular system, but it subdues active inflammation, and acts as a true life-sustainer when we are compelled to meet the protracted suffering incident to our frail mortality.

It is obvious that each of these "antagonistic" remedies of Dr. Gubler has a wide range of application. But the question arises: Can the several effects that we have imputed to them be confidently relied on when administered in the several pathological conditions that we have indicated? We readily admit many and various exceptions; but we claim that the number of these exceptional cases will be greatly reduced *when the two remedies are given simultaneously.*

Some of the exigencies demanding a combination of these remedies will now be indicated.

1st. There are many acute inflammatory conditions that will promptly yield to the influence of full doses of opium, where these doses cannot be given without the risk of so far paralyzing the nervous energies as to induce fatal congestions. We have seen that quinia possesses pre-eminently the power of giving contractile action to the capillaries, and thus overcoming congestion; and experience has amply demonstrated that if the proper amount of this be combined with the opium in the class of cases above referred to, as much of the latter

may be administered as may be requisite to produce the effect desired.

2d. A frequent objection to the free use of opium is its tendency to so far reduce the biliary and renal secretion as to incur the risk of fatal toxæmia. Combined with quinia this tendency is to a great extent counteracted.

3d. Opium frequently reduces the respiratory action to such an extent that we are liable to have all the evils incident to imperfectly aerated blood. If, under these circumstances, we invoke the "antagonistic" effects of quinia, these unpleasant consequences are usually averted, while all the desirable effects of the opiate are retained.

4th. The *after effects* of opium are frequently so unpleasant as to neutralize or perhaps overbalance all the good that would otherwise result. These usually do not appear when the remedy is administered in combination with quinia.

5th. In many cases of extreme exhaustion, such as follows protracted hemorrhages and other like debilitating causes, we can temporarily arouse the energies of the system by the free use of opium; it is in fact the sheet-anchor; often the only hope. When the sensibilities of the system are thus reduced, the toleration of the drug is often truly astonishing. Under these circumstances, however, it not unfrequently happens that the quantity which is barely sufficient to produce the reaction is yet sufficient when it *does* occur to produce unpleasant narcotism. If in these cases we give quinia with the opium, we not only secure the desired action with a less amount of opium, but the more protracted operation of the quinia will enable us to maintain the reaction for any desired length of time without those frequent repetitions of the opium that would otherwise be necessary.

We may mention in this connection that persons who from accident or design have taken *overdoses* of opium and are found in a state of narcotism, are often promptly aroused by the administration of a full dose of quinia. This is especially the case in young children, who usually tolerate opiates very badly.

6th. Many patients from idiosyncrasy cannot take opium. When given in combination with quinia a large proportion of these persons take it without inconvenience.

We might multiply these examples were it necessary; but if we are thus far correct, quinia is a valuable adjuvant and often corrects the unpleasant effects of opium.

It may perhaps serve to illustrate the foregoing propositions

to state that other agents than quinia, as the peculiar mental condition of lunacy, the continued effect of cold, &c., will sometimes neutralize the bad effects of opium without impairing the good ones. Mr. Skey being obliged to ride all night in December when he had forgotten his overcoat, says: 'After riding ten miles I took twenty-five drops of laudanum, and rode the remainder of the night without inconvenience." He says, it may be asked "What was the effect on the following day?" and replies, "None whatever. The cold and the opium mutually balanced each other; there could be no reaction, for the duration of the cold exceeded that of the opium."

I am inclined to think the action of the quinia in this regard analogous to that of cold. The duration of its action generally exceeds that of the opium, thus supporting the system till the effects of the opium shall have passed away.

On the other hand, certain well-known effects of *quinia* are often desirable where, from peculiarity of circumstances, we either cannot obtain them, or, doing so, we bring with them such an undesirable train of concomitants that we are forced to dispense with the article altogether. We will notice a few of these peculiarities very briefly.

1st. The prominent feature of many diseases is dangerous *congestion* of some internal organ or organs. Here the well known action of quinia in giving contractility to the capillaries of congested parts is exceedingly desirable; but where, on trial of the remedy, we find we have imparted only a peculiar *excited* action to the general circulation, under the influence of which the congestion is aggravated rather than relieved. The addition of a sufficient amount of opium to control this excitement will not only insure the legitimate operation of the quinia on the capillaries, but by diverting the general circulation to the surface, aids still further in overcoming the congestion. In this class of cases either opium or quinia acting alone would almost certainly add to the existing congestion; *in combination* the bad effects are neutralized, and the two remedies co-operate in producing the desired relief.

2. There are many forms of *inflammation* to which, *mutatis mutandis*, the above remarks will apply with equal force. Judicious combinations of the remedies in question will often give us the most perfect control of the vital forces, and enables us to fulfil the various indications in the most satisfactory manner. There are many points of interest involved in this branch of our subject, in the discussion of which the limits of

our article forbid us to enter. (For much that is valuable on the points here involved we refer to the *Dublin Hospital Gazette* for July, 1856, and the *Dublin Quarterly* for August of the same year.)

3d. There is another great class of diseases in the treatment of which quinia is almost indispensable. I allude to the idopathic fevers. Here also we are liable to have various disturbing symptoms demanding the use of opiates. Experience has demonstrated that they may be combined with quinia with the most beneficial results.

4th. There are various affections usually denominated neuralgic, which are palliated by opiates and sometimes *cured* with quinia. These cases will often yield more speedily to the *combined* influence of opium and quinia than to any other known remedies.

5th. There are numerous morbid conditions belonging to the *neuroses*, often associated with anemic states of the system where the true etiology of the disease can doubtless be traced to *defective nerve nutrition.* We have already had occasion to notice the action of both opium and quinia in modifying and improving the function of nutrition. In the present state of our knowledge there is nothing that would preclude the idea that this improved nutritive action may extend to the nerve tissue, But whatever the rational, the fact remains that very many of these neuropathic conditions will yield to the combined action of these remedies.

We are forced to the conclusion that opium and quinia are not so far "antagonistic that they should be administered simultaneously," as maintained by Dr. Gubler.—*Am. Jour. Med. Sciences.*

DR. DAVID SKAE'S DEFINITION OF INSANITY.

I had arrived at the conclusion that it was a disease of the brain affecting the mind. I have to complete this definition by saying how it affects the mind. My reply is, that emotions and passions are caused by the *disease*, and not by the motives ordinarily calling into action these emotions—that is *moral* insanity—and that in another class of cases ideas are believed in which have no evidence of their truth; they are neither founded on fact, observation, nor memory, and are such as no sane man would entertain as matters of testimony or observation; they are, in fact, morbid fancies and beliefs—ideas caused and believed in by disease.

To reduce my definition to a brief compass, I would say that *insanity is an* (*apyretic*) *affection of the brain in which emotions, passions, or desires are excited by* DESEASE (*not by motives,*) *or in which* CONCEPTIONS *are mistaken for acts of* PERCEPTION OF MEMORY.

This definition appears to me to comprise everything. The first part of it defines *moral insanity*, in which the propensities, emotions, and desires alone are *morbidly* excited; and the second part of it defines *intellectual insanity*, in which there are actual delusions or hallucinations, so long considered the essential feature of madness. If I would add anything to this definition, it would be the *loss of self-control* or *self-direction*, which appears to me to be the peculiar characteristic of all forms of insanity,—that loss of self-control over the actions, which permits them to be restless, violent, or extravagant; a loss of control over the passions, which permits them to overrule the judgment and the conscience, and ends in acts of vice, debasement or violence; a loss of control over the succession of the thoughts, which permits them to be incessant, rapid, and incoherent; a loss of control over the ideas, which precludes the insane from the exercise of comparison and judgment, and leaves them (as D. Stewart remarked), like persons in dreams, to mistake the objects of reverie or imagination for realities. In fact, I know of no designation for insanity which more briefly and correctly distinguishes it than the old Scotch one, namely, a man who has *lost his judgment.—Edin. Med. Journal, April,* 1861.

PUERPERAL INSANITY.

[We extract the concluding pages of a very valuable article, too lengthy for our space, in the July No. of the Am. Jour. of Insanity from the pen of Dr. J. H. Worthington.—*Ed.*]

The prevention of puerperal insanity will consist in placing the female under the most favorable hygienic influences which her circumstances will allow. Care should be taken to guard against every source of exhaustion. It ought to be remembered that the discharge from an extensive surface, like that of the interior of the uterus after parturition, cannot fail to reduce the strength of the patient. Her diet, therefore, while it is unstimulating should be nutricious. In her susceptible condition, she should be guarded from all excitement, such as unnecessary visits and conversation, and kept as much as possible out of the reach of anxiety and other painful emotions. Errors of regimen, such as exposure to cold, and indulgence in improper articles of diet, should be avoided. During inaction, if symptoms of anemia should be manifested the infant should at once be weaned, care being taken to avoid the distension of the breasts with the lacteal secretion, and the formation of abscesses. The return of menstruation should be carefully watched, and especial care taken to avoid every exposure until the function is re-established.

In puerperal as in ordinary insanity, so little is positively known of the anatomical lessions which characterize the disease, that in forming a judgment of its nature we are obliged to depend on our knowledge of its causes, and the circumstances under which it most commonly originates, rather than upon the structural changes it produces. The data furnished by morbid anatomy are almost entirely of a negative character; autopsies in the fatal cases having generally failed to show any positive evidence of inflammatory action. It is true that the recent researches of Dr. Calmeil have led him to conclude that acute delirium, which so frequently supervenes in fatal cases of puerperal insanity, is an inflammatory discolor of the cortical cerebral substance; yet he considers it an inflammation which is generally, if not always, met with in exhausted conditions of the system, and can not be treated by active, antiphlogistic measures. In regard to the nature of the affection, Dr. Macdonald remarks:

"When insanity occurs during the puerperal state we would expect to find the disease one of irritation rather than of inflammation; for it is admitted by all that the susceptibility of the female is never greater than during this period. She has been exhausted by uterogestation, while from the growth of the fœtus she has required more nourishment than usual; the irritability of her stomach has perhaps prevented her from using her accustomed quantity of food; she has been debarred from exercise in the open air, that preserver of life and health, and has been worn down by the doubts, and fears, and anxieties that are so apt to hang over the minds of women under these circumstances. In this state we would not look for inflammation; nevertheless we may sometimes meet with it, as we do with pneumonia in typhus, or after severe injuries or surgical operations, where there has been great loss of blood and strength. But it is not that active, vigorous inflammation which occurs in strong individuals. It is an inflammation which, judicious practitioners tell us, is often more successfully treated by stimulants in conjunction with other remedies. When it occurs during location we would expect to find a disease of debility, and we do find the mother pale, emaciated, reduced by suckling a large vigorous child, and by nights of watchfulness and anxiety for her offspring."

Various therapeutic measures have been proposed in the treatment of puerperal mania, among which may be mentioned local or general bloodletting, tartar emetic used as a contra-stimulant, warm baths, purgatives, narcotics, etc. I need not enter into any detail respecting the operation of these remedies. It will be sufficient to say, in regard to *all* depleting measures, that notwithstanding the appearance of energy and vital activity which may be supposed to be manifested by the quick pulse and great muscular strength, often exhibited by patients in a condition of extreme maniacal excitement, experience has proved, in too many instances, the injurious effects of all remedies of this description. In many cases in which, judging from the high grade of the delirium alone, we might be disposed to believe in the existence of inflammation, and consequently to resort to depletion, pain in the head, increased heat of the scalp, general fever, and other signs of inflammation are absent, and so far from being of service, any active depletion will then invariably render the condition of the patient more unfavorable. If, in an exceptional case, or in one in which the diagnosis is doubtful, the pulse should be found full and strong, and the condition of the patient appear

to require depletion, it should be resorted to with the utmost caution, and its effects should be carefully watched.

In the commencement of an attack of puerperal mania, it will generally be necessary to have the patient placed in a room partially shaded, which shall be kept as quiet as possible, and into which no one shall be allowed to enter except the necessary attendants and nurses. A warm bath, continued for one, two or three hours in the evening, will tend to allay nervous irritation, and promote sleep. The bowels should be regulated by simple laxatives, and as there will generally be found a vitiated condition of the mucous membranes, evidenced by a furred tongue and offensive breath, laxatives should be continued daily with small portions of blue mass, until the tongue shows signs of improvement. Some gentle narcotic, of which a combination of asafœtida, hyoscyamus and camphor is a good example, should be given every three or four hours. The diet should be unstimulating but nutritious, and may advantageously consist in great part of new milk, given as frequently as the patient can be induced to take it, or as the stomach will bear it. If the acceleration of the pulse, the dry tongue, and the increase of maniacal excitement should indicate the supervention of acute delirium, the same treatment should be continued, but in these cases great difficulty will generally be experienced in controlling the movements of the patient, and in administering the necessary food and medicine. In this state there is a strong tendency to prostration, under the combined influence of the excessive muscular efforts of the patient, her almost total deprivation of sleep, and obstinate refusal of food. It is absolutely necessary, under these circumstances, to restrain the motions of the patient, by confining her with a bed-strap, by which means her strength will be husbanded, and the entire management of the case will be rendered more easy, and at the same time effectual. It is very important in these cases that the physician should have entire control of the bodily movements of the patient, in order that he may be able to apply warmth to the extremities if it should be needed, and also that he may have it in his power to administer food and drinks in such quantities as are necessary to support the strength of the patient. Under these cardinal points are attended to, but little good can be expected from the exhibition of medicines. In many cases of acute delirium the patients refuse food with such obstinacy that it is impossible, by any ordinary means, to give it in sufficient quantity. The œsophagus tube, which should be small enough

to pass through the nostril, must then be resorted to, and a pint or more of milk, beef-tea, or other liquid nourishment, be injected into the stomach twice daily. If there should be increased heat of the scalp, it may be sometimes removed by warmth to the extremities, or by a dose of laxative medicine, or, if these means fail, by the application of cold to the head. Mustard pediluvia in the evening are always of service, and blisters to the extremities have been found useful as a derivative. It sometimes happens that, with considerable mental anxiety and distress, evidences of cerebral expression will become apparent; the patient is conscious of every thing about her, but appears to labor under difficulty in collecting her thoughts, and in recalling the occurrences of the day. In attempting to do so her mind becomes confused, and the effort fails of its object. With these symptoms of oppression and tendency to coma, I have found, in the absence of fever, the application of a large blister covering the entire scalp to be followed by a decided improvement in the cerebral disorder, and relief to all the symptoms.

CAMP DYSENTERY.

BY C. D. GRISWOLD, M.D., Cleveland, Ohio.

MALARIOUS ORIGIN—PATHOLOGY COMPARED WITH THAT OF MALARIOUS FEVERS—"ABORTIVE" TREATMENT OF DYSENTERY, &C.

Dysentery is the plague of the army. In hot climates it often proves more destructive to the life of the soldier than the enemy's projectiles. It is the foe the commander most dreads to see appear, for no skill in tactics, no advantage in position, or bravery of his forces, avails in the contest. With the appearance of dysentery in an epidemic form, the General is sometimes compelled to resign his command into the hands of the Surgeon, and wait events. It was this disease that decimated the French army so terribly in Egypt, the English armies in India, and our own in Mexico. Wherever large bodies of men are compelled to endure great fatigue during the heat of the day, sleep on the ground at night with only a blanket between them and the earth, and to cover and protect

them from the dew and night air, there dysentery in its epidemic form is almost sure to appear sooner or later. The only other circumstances necessary to make it *certain*, perhaps, are a near approach to the tropics, or within them, and camping on low grounds.

Cause of Dysentery.—Epidemic dysentery, it is believed by many systematic writers, has its origin in malaria. While in charge of the hospital as surgeon of the Panama Railroad Co. at Rujio Saldado, during the construction of that road on the Isthmus, I saw much of this disease, and was led from its behavior to regard it as essentially a malarious disease. During the rainy season, corresponding with our summer, when the men on the works were subject to drenching showers, and would go into their quarters, and perhaps lie down without taking off or changing their clothes, to awake in the night chilled by the cool air, dysentery became the prevailing disease. On the other hand, when drought prevailed, we had fever alone to combat. The treatment sustained fully the malarious nature of the disease. Opium and its concomitant adjuncts had little control over the discharges, but if possible they were stayed by such means, a chill would set in followed by fever, to arrest which, quinine would be administered and the patient would recover as though no dysenteric symptoms had preceded it; but such a course would protract the case through several days; a matter of great importance, not only to the patient but the Company, inasmuch as the average expense of each man was five dollars a day. Where ninety out of one hundred were taken down with either dysentery or fever, within two weeks after arriving upon the Isthmus, it became a matter of the utmost importance to return the sick to their work in the shortest possible time. To this end we soon learned that quinine was as essential in cutting dysentery short as it was in accomplishing the same end in the treatment of the intermittent and remittent fevers—thus sustaining the opinion as to its malarious origin, instead of regarding the fever as a complication, as some would have it.

During a residence of five years at Fort Hamilton, R. I., I had frequent opportunities of observing and treating dysentery. This district is perhaps one of the most pernicious localities for miasmatic fevers in the vicinity of New York, and here I found dysentery as readily cut short by quinine as on the Isthmus. In 1859, epidemic dysentery prevailed to a considerable extent in Batavia and the surrounding towns in Genesee Co., N. Y., where I then resided. It proved very

fatal under the usual treatment, the patients sinking ultimately into a typhoid state. Here, as elsewhere, I found that quinine would bring the hæmorrhagic discharges to an early termination, and establish convalescence. Here dysentery was associated with a severe form of remittent, usually called typhoid fever, and which without the administration of quinine in many cases proved fatal.

From these observations thus briefly sketched, of the behavior of dysentery treated with and without quinine, together with the fact that it is always associated with some form of miasmatic fever, I have become satisfied that the agency of malaria as its cause is unquestionable. Its sporadic existence is not more frequent or difficult to explain than that of intermittent fever.

Pathology of Dysentry.—Those who remember the papers I contributed some years ago to this Journal, know that I regard intermittent, remittent and yellow fever, as all having one common or malarious origin. Spring malaria produces intermittent; mid-summer malaria, remittent of a simple type; later in the season, gastric, bilious and typhoid symptoms complicate it, upon which may be engrafted the virulent malaria of yellow fever from southern climates. Such was the case at Fort Hamilton and Staten Island in 1856. But little intermittent had prevailed that spring, but in July a severe form of remittent set in, with marked gastric and bilious symptoms, upon which the yellow fever poison became engrafted and proved very fatal, except in cases where quinine was promptly and largely given on the first remission. Now these diseases are produced by a poison developed from inanimate matter, and that only, and therefore not contagious in any sense of the term. The same law and conditions pertain to dysentery, and when we add it, to the list, we have the principal malarial diseases grouped together.

Let us glance at the phenomena exhibited in the different forms of disease we have classed together as arising from a malarious origin. In simple ague—the type of all grades of fever—we have during the chill an exsanguinous surface, with engorgement of the lungs principally, and to a great degree suspension of the development of animal heat. In remittent fever, we find the lungs not so generally involved, but the liver, spleen and stomach take on the congestion from the receding venous currents. The symptoms are gastric and bilious, and the general constitution is more seriously affected. In that form of fever regarded by many writers as idiopathic-

ally typhoid, we have still less chill, with greater depression of the vital powers, and subsequent ulceration of Peyer's glands, indicating a still more deep-seated congestion in the early stages of the disease. In dysentery, the primary congestion or engorgement takes place near the terminal extremity of the intestinal tract—in the rectum and colon, and as these organs are not so important in nutrition, the constitutional symptoms are not usually so depressing or dangerous. In yellow fever, the primary engorgement involves almost every interior organ essential to organic life, especially the liver, stomach and intestinal tract. In extreme cases, unless the virulent poison of the malaria is early neutralized by quinine, the venous engorgement is not relieved, the vitality of the blood is suspended, and it transudes into the mucous cavities and is ejected from the stomach as black vomit.

A little careful reflection will show that in each form of disease referred to, the symptoms and constitutional effects are in perfect accordance and harmony with the lesion, and that their distinguishing characteristics are from local causes, rather than from any radical difference in the primary source —that dysentery is just as truly a malarial fever as intermittent, its widely different symptoms being the result of the lession, or seat in which the malarial poison takes effect. Why malaria in the spring should take effect principally in the chest; in the summer in the liver and stomach; and in the autumn in the small intestines or lower bowel, is more than I can tell, but the length of time the surface which eliminates the poison has been exposed to the sun before it becomes sufficiently dry to generate the malaria, seems to have much to do with it. In the former papers referred to above, I endeavored to show that vegetable decomposition in no case generates malaria, a conclusion which extended observation I believe will fully confirm.

Treatment of Dysentery.—Life in the camp is specially calculated to produce dysentery, or the local determination of blood to the lower bowels, when the primary cause is taking effect on the system. The hips are more frequently exposed to the ground, and without covering, than any other part of the trunk, while the recumbent posture upon the ground is most favorable to the inhalation of malarial poison. The soldier subject to such habits requires a treatment specially adapted to his situation. He should take nothing calculated to increase his susceptibility to change of temperature, nor to impair his vital forces. To equalize the circulation, instead of

abstracting by blood-letting from it, should always be the rule. No error in practice is more frequently advised in text-books than this of bleeding in dysentery. Fortunately, from necessity, it is generally, I believe, dispensed with in the camp. Bloodletting was never beneficial in diseases involving the mucous membranes, and its disuse is rapidly following a better knowledge of the pathology of dysentery.

Mercury is another remedy which has been highly esteemed in dysentery, from a confused idea that this disease was in some way a sequence of diseased condition, or deranged function of the liver. All careful observers will find the hepatic difficulty but an *effect* and not a *cause* in dysentery, as in all malarial fevers. The primary effect of malaria is upon the organic system of nerves, and hence the processes of nutrition are suspended. The liver being the largest secretory gland in the system, the effect in this organ is most apparent. Malaria serves to lock up all the secretions, and hence the true remedy is that which will neutralize this poison, when all the organs resume their functions and the system returns to health. The use of mercury in dysentery is not indicated by any condition of the disease, and in camp dysentery it cannot be too freely deprecated. Its effect upon the constitution when long continued is analogis to that of malaria—the destruction of red globules in the blood, It is irritating to the mucous surfaces when diseased, and serves no purpose that may not be attained by the most simple cathartic. Mercury and malaria cannot be endured in the same constitution without a two-fold injury to the vital powers. Bloodletting and mercury are good remedies when inflammation involves serous membranes, but when the mucous tissue is diseased, abstain from their use. The liver will take care of itself if the primary cause of the disease is properly attended to.

Alternate cathartics and opiates is a favorite course with the old physicians. I have seen a patient sink and die within three days from the effects of a cathartic, and this, too, after the physician had decided convalescence to be fully established. The practice which I have found pre-eminently successful consists mainly in the administration of powders composed of Ind. rhei, grs. ij.; opii and ipecac., aa gr. ss. In preparing these powders I triturate the ingredients thoroughly in a mortar, combining a little white sugar. When there is indication of acetous fermentation in the stomach and bowels, add a little sub. carb. soda. When there is obstinate constipation, increase the rhubarb; if the bowels are relaxed, lessen

it. If fever runs high, increase the ipecac. until nausea is produced. The rhubarb will work its way through the bowels and carry the opium to the seat of the disease, preventing the formation of scybala or the necessity of other cathartic remedies. When there is no fever at the commencement, I give quinine to the adult in four-grain doses, alternating with the above powder, every third hour. When there is well-marked pyrexia, wait until a distinct remission before giving the quinine; it should be continued until 16 to 20 grains are taken, or cinchonism is produced. With this simple treatment, commenced early in the disease, the great majority of cases will be cut short within forty-eight hours, and the patient may be permitted to go about his business. On the Isthmus a patient was seldom detained from his work more than one day from an attack of dysentery; and in simple ague he was merely required to report himself at the hospital before each meal, to take his quinine and go to his work regularly, in the majority of cases. The proportion of deaths to the whole number of cases on the Isthmus was very small, the statements of the secular papers to the contrary notwithstanding. The whole number during the first and second year was about 35. I have seen the number stated more than the whole number of persons, both native and foreign, ever employed upon the road from its commencement to its completion.

A wide-spread prejudice obtains with the public against the use of quinine, and many physicians do not seem to be much better informed upon the subject. It is as harmless, in producing any permanent constitutional effects, as capsicum. I have administered over a hundred ounces from first to last, without ever discovering any injurious effects from it. During the yellow fever epidemic at Fort Hamilton, L. I., and during and subsequent to an attack of that disease, I took about two hundred grains of it, and have never been in better health in my life than since. It should be remembered, however, that I was a month almost constantly breathing the poisoned atmosphere of that district, having no time to attend to myself as I did others, taking the remedy at hap-hazard as I felt the indications coming on. Quinine alone has no permanent effect in preventing the recurrence of fever. It simply neutralizes the poison of malaria for the time being. More permanent results were obtained from the use of the bark in powder, as administered before sulphate of quinine came into use. A concentrated preparation of the calisaya bark should always be used after breaking up a fever with quinine, in private or hospital practice.

The use of spirits by those subjected to a malarious atmosphere is exceedingly prejudicial. There are few constitutions that can bear up under the combined effects of malaria and strong drinks; fever is hastened and rendered less amenable to treatment by such practice. On the Isthmus this was most thoroughly tested, not only among the laborers, but with the people generally. Of the four deaths that occurred in my department, two of them were from this cause.

Many measures may be adopted by the physician or army surgeon not indicated here, for the relief of the patient suffering from dysentery; my object being to establish general principles for the "abortive" treatment of the disease, and not to dwell upon the minutiæ. If I have succeeded in calling attention to, and pointing out the way by which the miasmatic origin of dysentery may be recognized, I am confident that it will lead to a more speedy and successful treatment of this disease than that generally advocated by textbooks and the profession.—*Bost. Med. Jour.*

VIRCHOW'S PATHOLOGICAL VIEWS.

BY DR. R. K. BROWNE,

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[Read before the New York Medico-Chirurgical College, June 27th, 1861.]

Virchow is an epoch-making author, and is justly entitled to the prefix great. His pathological doctrines mark the opening of an era during which they will lead the advance in that field of science. The existence of Virchow's "Cellular Pathologie" is well known, yet apparently but few of the medical world have examined into the purport of its contents. It consists of twenty lectures, which, in 1858, at Berlin, first came from the lips of Virchow. They are reported to have been very convincing to his auditors.

We are not about to present a summary of this volume, but merely a succinct exposition of certain of its portions. It contains but very little matter that, prior to the lectures, had not been presented by Virchow in other publications, and the student of medical science, *au courant* with the contributions made to its literature in Germany for the most recent ten

years, will find in the "Cellular Pathologie" but little entirely new or surprising; and in that literature must a fuller presentation of Virchow's researches and discoveries be sought for.* "Cellular Patholigie" imports a pathology in contradistinction to the humoral and solidistic pathology, from both of which it is sufficiently distinct, without, however, involving their entire rejection.

Cell Development.—The leading position of Virchow, contrary to the persuasion of the older pathologists, is in his understanding of the mode of cell-production and transformations. Starting from a denial of *free* cell-production, his explanation of the mode of formation of pathological tissues is directly at variance with the general view, which is, that free cell-production constitutes the mode of growth of all pathological formations.

The same view was also held undoubtingly with regard to the physiology of normal tissue-growth, until Kolliker made the covert suggestion "that it had been much too readily taken for granted. (*Microscopical Anat.*)

A brief sketch of the essential points of the doctrine of cell-production as they appeared from time to time in its history, rejected by Virchow, will enable those whose studies have not familiarized them with it, to understand Virchow's views of cellular growth, and his use of them in the field of pathology.

Raspail, in 1844, was the first to describe the morphology of the cell, and to give an account of the process of its formation, which he likened to crystallization. He described them as arising in "a liquid tending to organize." Raspail ascribed, therefore to the cell only an active capacity, while he ascribed to the fluid implied a formative or generative capacity, by which from itself the cells were formed. The latter idea became that of Schleiden and Schwann. But Raspail had done little more than theorize upon the observations which had accumulated in the era preceding him. We owe to Schleiden, the botanist, the first series of observations on which reposed the theory of cell-development.

He studied the process of cell-development as presented in the embryonic stage of vegetable growth. His first observations were upon the capsule which contained the albuminoid substance of the seed, and also the extremity of the pollen-tube, from which the embryonal growth arises. He repre-

* Virchow himself informs us of this; our acquaintance with his researches is recent.

ented that in both these points a solution exists which first ssumes a turbid and then a granular aspect; nucleodi arise rom the union of these granules at various points; next round these are found nuclei, (cytoblasts,) and subsequently he cells.

According to this account, the mode of production of the ells is the same as that of Raspail, though Schleiden spoke f its being "the formation of cells within cells;" yet, lthough the process took place within the large cell or mbryonal sac, it is plain that each cell arose separately out f the fluid implied, and that no one of them took part in the eproduction of others. This process is what we now know s free cell-development, and this is the doctrine which Virhow rejects. Schwann followed Schleiden, and made his bservations on the embryonic animal normal tissues. He ad adopted Schleiden's theory of cell-production. In his xamination of animal tissues, Schwann observed in the mbryo innumerable cells reposing in a more or less consistent ntercellular substance, and towards the production of these e entertained the idea previously announced by Schleiden. Ie thus assigned to the production of the cellular elements of nimal tissues the doctrine Schleiden had alleged with refernce to vegetable tissues. In his account of the processes ubsequent to the origin of the cells, by which these are transormed into the structure, Schwann was entirely original.

This doctrine of the mode of cell origin in normal tissue vas adopted by Johannes Muller in his classification of pathological formations and morbid growths. Muller led in showng that it is under the same law both normal and abnormal rowths are developed; and relying upon Schwann's dictum especting the origin of the cells, his own observations were vith reference to the processes of their transformation into bnormal structure, or into degenerated morbid products.

The doctrines of Muller in pathology became those of Vogel, Lebert, Rokitansky, Paget and others. None of these einvestigated Schwann's and Schleiden's doctries of cellroduction, and their researches were limited to the investigaion of the various stages of the transformation, by which norbid growths are formed out of cells after these had orginted from that blastema. But while the train of pathologists vere accepting Schleiden unquestioned, and had accumulated heir stores of observations in accordance with the erroneous presumption of free cell-production, the botanists, dealing vith normal vegetable tissue, were diligently reinvestigating

cell-growth, and in 1844 Hugo Von Mohl brought forward his explanation of the formation of cells in the plant. He affirmed that the production of cells in plants occurred only in the cavities of other cells, (plant-cells.) He differed also materially in his account of the order of the formation of the cell, its nuclei and nucleolus, from that of Schleiden; "not the nucleolus appears first, he says, "but the nuclebs or cyto-blast." Von Mohl was soon followed by the investigators in animal tissues, who objected to other points of Schwann's teachings. At length, in 1852, Remak unreservedly rejected Schwann's doctrine of free cell-development, and announced the aphorism—"*Omnis cellula in cellula*"—which became the leading doctrine of Virchow, and the pedestal of the "Cellular Pathologie."

"*Omnis cellula e cellula.*"*

Virchow says, "Just as little as we can now admit that teniæ can arise out of saburral mucus, or that out of the residue of the decomposition of animal or vegetable matter an infusorial animalcula, a fungus or an alga can be formed, equally little are we disposed to concede in physiological or pathological histology, that a new cell can build itself up out of any non-cellular substance. Where a cell arises, there a cell must have previously existed, (*omnis cellula e cellula,*) just as an animal can spring only from an animal, a plant from a plant."

This doctrine supplants that of Schawnn; and although Virchow was not the first observer to propound it, yet he has brought to its illustration such a wealth of observation, and has applied it in such sweeping elucidation of the normal tissue and pathological formations, especially the latter, that he is fairly entitled to the credit of being its ablest expositor.

It will be evident that without vacating the theory of free cell-production from a formative substance, plastic lymph or cyto blastema, no radical or important change of our view of morbid products or pathological formations could have been attained to. The true production of the cells in the first instance, and the manner of the multiplication, and various transformations constituting the growth ot the tissues, was the most indispensable part of a correct understanding of either normal or pathological tissue development, and Virchow believes with Johannus Muller, that the law is similar for the growth of both these. Until the day of Virchow, the path

* Virchow, Beit. Zur. Spec. Pathologie and Therapie., 1854.

ologists had supposed the various pathological or morbid developments to be in the first instance a blastema or plasma, exuded from the vessels of the diseased parts, and that this itself was developed by its own capacity into the cellular growth which constituted the new formations. The degeneration of the histological forms constituted the final stage of the morbid products, as pus, etc. It is the doctrine of blastema and cell-growth that Virchow displaces by substituting the histological elements, we shall now describe.

Says Kolliker, "free cell-formation is exceedingly frequent in pathological productions, and the cells in pus and exudations of all kinds arise in this manner; in fact, all pathological cell-formation properly comes under this head." (*Microscopical Anatomy.*)

According to Virchow, the great majority of all new pathological formations arise from the excessive and perverted growth of the corpuscles of the connective tissue. Each of these, individually, consists of the cell, its nuclei and nucleoli; the constructive process consisting in all growths, malignant or benign, of the division of their nuclei and their multiplication. Instead of new formations by free cell-development from plastic lymph or blastema of Schwann, or the exudation of the early pathologists, Virchow shows that these growths are constituted of the development of the cellular element of connective tissue; the "connective tissue corpuscle" therein being the active agent of the growth, and the connective tissue itself being the seat of formation. Virchow has shown that this connective tissue, with its cellular element, the "connecnective tissue corpuscle," abounds everywhere in the human body, and that it may be regarded as enmeshing all other histological elements. Its different varieties abound profusely in the brain, liver, kidney, muscles, cartilage, and even the skin and bone; and that whatever morphological changes its cellular elements undergo, they constitute the growth of pathological formations, which are but a development of the cells of connective tissue, or a degeneration subsequently of its elements.

The cellular element of connective tissue, "the plasmatic cell," is Virchow's own discovery, and he gives the first exposition of its nature and pathological relations.

Virchow affirms that all, or nearly all, the morbid formations arrise within the connective tissue by the perverted growth of these "plasmatic cells," and makes it evident how, by the abundance of this tissue everywhere in the body,

pathological formations of the same character arise in different organs, since the same producing cellular elements are equally present in the most widely separated organs.

But this being so, what is Virchow's view of connective tissue? for it is manifest that with our idea of this tissue, we cannot concede to it the functions he ascribes to it.

The histogenesis of connective tissue turns out to be related in the closest possible manner with pathological doctrine, and although recently other investigators had come to suspect that we must look to it for the growth of pathological products; yet, before Virchow, connective tissue was regarded as the most inoperative structure in the body, having none but passive properties. It was said to consist of white and yellow elastic fibres in close combination, with pigment and fat cells.

According to Schwann, the fibres of connective tissue are transformed from cells of the simplest form, which commence the process by assuming an elongated shape, thus fasten end to end, and gradually break up into fibres within *the body of the cell*, then splitting into distinct fibrils, so that each row of cells, thus mutually attached by their extremities, is developed into a bundle of connective tissue. The white fibrous bundles are sometimes described as non-cellular fibres, in very intimate conjunction with a homogeneous intercellular material, and sometimes as this very material, disposed in such a way as to present a fibrillated appearance, though not capable of separation into distinct fibrils. Notwithstanding connective tissue from the date of Schwann's researches has been the object of much investigation, Virchow was the first to give a complete and satisfactory account of its mode of formation and the character and history of its elements.

According to Virchow, the connective tissue consists of (1) white bundles; (2) elastic fibres; (3) the "connective tissue corpuscles" or cells and an intercellular substance, the same which Schwann reputed to be the blastema from which the cells were generated. The white fibres arise from the direct fibrillization of the intercellular substance, and while this is taking place some of the cells are transformed into elastic fibres, and others change to fat and pigment cells, recognized by histologists, while others of a spindle-shape, or more or less stellate, remain as a part of the tissue itself. The elastic fibres result from a peculiar change and sclerosis (hardening) of the walls of the cells, which terminate in a disappearance of the cell contents and the obliteration of their cavity. The corpuscles, sometimes fusiform, but more frequently star-

shaped, and joined by means of their branching prolongations, so as to form a net-work similar to that of the structure of bone, the corpuscles and and canaliculi of which Virchow asserts are really cellular, consisting of these very elements greatly transformed. As before said, while some of the embryonic cells are assuming their stellate, frequently anastamosing form and others becoming elastic fibres, the homogeneous intercellular substance becomes fibrillated, and the whole series constitute the connective tissue. By their capacity of division and multiplication, the "plasmatic cells" produce all pathological growths, whether malignant or benignant; the only distinction there is between these two being established by the kind of irritation or excitation in the part, to be explained further on. Instead, therefore, of finding the origin of new formations in plastic lymph, blastema, or organizable exudation from the blood-vessels and free cell-growth within it, Virchow substitutes for the plastic lymph, the blastema of the earlier and the plasmatic exudation of later authors, connective tissue, and especially its cellular element—"and directly traces to it the development of new formations, except epithelial formations and a few others." Virchow's doctrine, therefore, of the origin of pathological growths turns upon the fact that these cells have the function *or power of multiplying by division and originating broods of secondary cells*, in virtue of the irritation their subsequent action *supposes*, and that the developments of these cellular elements, with their outgrowths, or final degeneration, as in corpuscular lymph, pus, tubercle, constitute the vast majority of pathological formations, which are therefore growths of connective tissue. But it is not alone the cellular element of the connective tissue, but other parts of the tissue—the structural development of the cells—also undergo changes, degeneration, &c., &c.

But if the cellular elements of connective tissue are the active constituents of pathological processes, what is the inducing or exciting physiological cause of these processes? This, of course, is only to be sought in some relationship of these to external influences, and is found in the phenomena of irritability, induced when some cause of irritation acts either directly or indirectly through the medium of the blood upon the part, the normal state of which is thereby so altered, that it absorbs and attracts to itself from the parts around it a larger amount of matter than ordinarily.

Irritability.—Irritability pertains to the phenomenal history of every living thing, and "it is," Virchow says, "the very

criterion of life." "Vital activity is, in so far as we are able to judge, nowhere, in no part whatever, carried on by means allotted to it in the beginning, but we everywhere see that a certain excitation is necessary for its production;" and accordingly, whenever a particular action is called into play, we have to deal with a manifestation of the function, the nutrition, or the formation of any part.

Irritability, therefore, is distinguished by Virchow into functional, nutritive and formative, and either of these may alone exist, or they may coexist. The action of the elements of a part may, therefore, be displayed either in the promotion of its function, its nutrition, or its formation.

The first is displayed in the performance of the normal functions; a muscle contracts, or a gland secretes, although this may be excessive, and is then considered morbid. It is to be noticed that the influences which induce the functions are various, and are not indifferent. They operate under a law of specific relation or affinities between them and the elements of the parts.

Nutritive irritability is of much more interest to the pathologist than functional. It is manifest when the nutritive activity of parts is augmented, and is defined by the conditions in which there is an increase in the size of the cells of the affected part, but no *new formation* of the cellular or other histological elements. Thus, in Bright's disease, the renal peithelial cells enlarge merely by excessive nutritive absorption. Their contents become turbid, and the tubules broadened. "If we draw a thread through a cartilage so that merely a traumatic irritation is produced, we see that all which lies close to the thread becomes enlarged through an increased absorption of material."—P. 298. This turbidity of the cells of the part and increase of their dimensions constitute a form of corneal opacity.

Finally, formative irritability is exhibited in a marked multiplication of the constitutive elements. It follows nutritive irritability. In it, we find that the cellular elements, shortly after they have experienced the nutritive enlargement, exhibit further changes, which begin in the interior of the nuclei. The nucleoli become remarkably large, sometimes oblong, and sometimes staff-shaped. Then the nucleoli become constricted in the middle and assume the form of a finger-biscuit-like constrictions, and afterwards the real division of the nucleus, also take place. This may be repeated, so that three or four nuclei arise. If now we advance a step further in these

process, we come to the new formations of the cells themselves."—P. 310.

Groups of many cells arise by the continuation of this process from single ones; and in this mode of cell-production, and of these groups, consists morbid tissue growth. Their subsequent transformations and degeneration constitute the final form of the pathological product. Coincident with either of these forms of irritation may exist vascular or nervous disturbance, but they are never the inducing cause of them; "for," says Virchow, "all these forms of irritability may appear in parts not known to possess either nervous or vascular elements."

Inflammation.—In inflammation we have all three forms of irritation. In traumatic injury of muscle, for instance, we have nutritive and functional disturbance; and in inflammation of interstitial connective tissue, we have new formations and degenerations, pus, etc.

Inflammation divided.—There are two distinct forms of inflammation, but to Virchow there is no such thing as inflammatory exudation. The morbid product arising in the inflamed part is composed of material which has been generated there from the materials already there, and not deposited there from a separate source.

First, there is a purely *parenchymatous inflammation*, within the tissue, and presenting no free fluid. The cellular elements of the tissue are increased in dimensions and filled with abnormal matter. And, second, there is a *secretory* (*or exudative*) *inflammation*, belonging mostly to the mucous and serous surface. In these, the abnormal cellular product forms on the surface, attended with an increased amount of fluid.

That he has correctly conceived these cases, Virchow says, is shown by the fact that they occur in different organs. The *secretory inflammation* effects the formation of fibrin upon surfaces or in cavities, or the production of masses of mucus upon mucous surfaces; for just as the mucus is the product of the membrane carried out upon its free surface by means of the saline and watery matters of the blood, so also the fibrin, (or coagulable lymph,) instead of being a transudation from the blood-vessels, the work of vascular action, is a local product of those tissues on, and in, which it is found, and reaches the surface in the same way as the mucus of the mucous membrane.—P. 392. Absorption of the fibrin thus produced into the blood causes the increased quantity of fibrin there in inflammatory fever.

"The fibrinous crasis, therefore, is the product of local disease."

Instead of the cellular elements, *i. e.*, pus or mucous corpuscles, arising from the blastemas exuded, they are produced by the plasmatic cells, or areola tissue corpuscle of the seat of the inflammation.

"*Parenchymatous inflammation.*"—In parenchymatous inflammation, all the fluid transuded from the blood-vessels is absorbed by the cells of the parts involved, although the production of new elements may occur, or various degenerative changes may occur, (as fatty degeneration.)

The commencement of inflammation, therefore, is not in a peculiar action of the vascular or nervous tissue, but in that of the cellular elements of the part involved; and the hyperæmic condition of the vessels is not the cause of the local inflammation, but a consequence of the abnormal growth of the irritated elements of the tissues. Stop, or reduce the supply of blood, and you cut off the food which feeds their growth. "If," says Virchow, "we cut off or diminish the supply of nutritive matter, we must, of course, prevent the part from absorbing more than its wont."

Formation of Pus.—Virchow distinguishes two modes of pus-formation, according as pus proceeds from epithelial or from connective tissue.

If from the former, the pus-cells are produced by the multiplication of the cells of the younger strata of the epithelium, (*e. g.* the rete Malpighi of the skin.)

Says Virchow: "The more deeply-seated pus formations regularly take place in the *connective tissue.* In it, there first occurs an enlargement of the cells, (connective tissue corpuscle,) the nuclei divide, and for some time multiply excessively. This first stage is then very soon followed by divisions of the cells themselves. Round about the irritated parts, where before single cells lay, pairs or groups of cells are subsequently found, out of which a new formation of an homologous kind (connective tissue) usually constructs itself. More in the interior, on the contrary, where the cells were early abundantly filled with nuclei, heaps of little cells soon appear, which at first still preserve the direction and form of the previous connective tissue corpuscle. Somewhat later, we here find roundish collections, or diffuse infiltrations, in which the intermediate tissue is extremely scanty, and continually liquefies more and more in proportion as the proliferation of the cell extends.* After the abscess produced by such a process

*Cell. Pathologie, p. 451.

discharges, it is healed by granulations, for the formation of which it is essential that the intercellular substance should not be entirely liquefied. The difference between the suppuration and the granulation is, that in the former, the degenerative process exceeds the formative; while the reverse is the case in granulation. In the former, the intercellular substance, which is the nidus of the cells, liquefies and deprives them of further capacity of multiplication. It is an error, therefore, to attribute ulceration to the corrosive properties of pus.

"Pus is not the dissolving, but the dissolved, *i. e.*, the transformed tissue." The old structures heal up and disappear in the process of producing the new ones. The product of the cell multiplication takes the place of the previous tissue, and the ulcer will continue to increase in its size so long as this excessive cell-proliferation continues. The newly produced elements arise from prior ones which cause their structural character in the very act. So by a similar process in the production of morbid growths, the elements of the new growth arise out of the connective tissue corpuscle of the diseased tissue. Hence Virchow decides that "*there is a stage* when it is impossible to ascertain indubitably whether we have in a diseased part to deal with simple process of growth, or with the development of a heteroplastic form."—P. 454. For "the first development of cancer, of cancroid, and of sarcoma, exhibits the same stages; if the course of their development be traced sufficiently far back, we at last come across a stage in which, in the younger and deeper layers, indifferent cells are met with, which do not until a later period, according to the particular nature of the irritation to which they are exposed, assume the one or the other type."—P. 454.

In this view it is plain how microscopists have differed in the diagnosis of cancer.

Virchow classifies the new formation as heterogeneous and homologous; both, though they differ, are equally abnormal.

"Heterologous we may call not only malignant, degenerative neoplasms, but we may also thus designate every tissue which deviates from the recognized type of the part; whilst we should call all that homologous which, though new formed, still reproduces the type of its parent soil. Thus, the cells of pus are heterologous, because they differ from the normal parent cells by the proliferation of which they were produced; but tissues may be heterologous though they do not vary from physiological types.

"There is," says Virchow, "no other kind of heterology in morbid structures than the abnormal manner in which they arise, and that this abnormity consists either in the production of a structure at a point where it has no business, or at a time when it ought not to be produced, or to an extent which is at variance with the typical formation of the body."

Heterology, we are warned, must not be identified with malignity.

Malignity.—Cancer is malignant, not "because it contains heterologous cells, nor cancroid benignant because its cells are homologous; they are both malignant, and their malignity differs only in degree." For "(enchondromata) which were formerly described as unquestionably benignant, sometimes occur in soft, and rather gelatinous forms, which may occasion just such internal metastases as cancer."—P. 486. And sarcomata may "appear secondarily in the lymphatic glands, and in many cases occur throughout the whole body, metastatically, to much an extent that scarcely any organ is spared by them."—P. 487.

Morbid growths may infect other organs than where they arise in either of two ways. On the one hand, their cellular elements may pass into the blood, which rarely happens; or on the other, vitiated fluids of the part first affected may pass into the venous or lymphatic system, and reach some part where they may excite in the same action as occurred in their production.

A special blood disease giving rise to tumors is not admitted; but particular substances, it is admitted, may find their way into the blood, and induce particular morbid changes in individual parts by their being taken into them in virtue of a specific attraction between these parts and substances.

Very interesting to the surgical pathologist will be his account of the recurrence of certain morbific growths after extirpation.

"If we examine any proliferating tumor, of a cellular character, we often find from three to five lines beyond its apparent limits the tissues already in a state of disease, and exhibiting the first traces of a new zone. This is the chief source of local recurrence after extirpation, for it proceeds from the zone, that cannot be detected with the naked eye, beginning to grow in consequence of the increased supply of nutritive material, which results from the removal of the original tumor. No new deposit from the blood takes place there, but the new-formed germs, which already lie in the neighboring tissue,

run through their further development in the same manner that it would otherwise have taken place, or perhaps still more quickly."—P. 458.

But notwithstanding Virchow rejects the ordinary distinction of malignant and benignant tumors, and affirms the similarity of their source and of the character of their histological elements and their various transformations, yet he affirms that sooner or later there are differences, that the microscope can readily be applied to detect. Accordingly, he proposes that their classification be based upon their microscopic anatomy.

His views of the genesis of tubercle are peculiarly original. What we know as the miliary form alone is truly tubercular, with which, however, he classes the bodies found in the arachnoid, and which have been denied a tubercular character, because they contain cells.

Regarding these he says:

"You will generally find the tubercle in the brain described as being solitary, but they are not simple bodies; every such mass (tuber) which is as large as a small apple, (1 in.,) or even not larger than a currant, contains many thousand of tubercles. It is quite a nest of them, which enlarges not by the growth of the original form, but rather by the continual formation and adjunction of new foci at its circumference.

"If we examine one of these perfectly yellowish-white, dry cheesy tubera, we find immediately surrounding it a soft vascular layer, which marks it off from the adjoining cerebral substance, a closely-investing areola of connective tissue and vessels. In this layer lie the small young granules, ('miliary tubercles,') now in greater, now less number. They establish themselves externally, and the large tuber grows by the continual apposition of new granules, of which every one singly becomes cheesy."

But tubercle has its origin or growth in the cells of connective tissue; it is formed of a mass of cells rich in nuclei, by a process of cell-proliferation, similar to that for pus. It is distinguished from the latter, and also from the more highly organized forms of cancer, which are formed of large corpuscles, with highly developed nuclei and nucleoli. Tubercle is also developed out of the histological elements of connective tissue, by a process of degenerative cell-proliferation. By the profusion of its growth the nutritive supply is cut off, and then it shrinks and assumes its disintegrated cheesy state. But pus or cancer may undergo a similar metamorphosis, contrary to

Sebert, who believes the corpuscles found in the centre of tubercle "to be the first bungling products, unfortunate essays of organization." Virchow affirms that they are formed out of matured elements, by shriveling and fatty degeneration. When a large tubercle corpuscle is found, "a cell had previously existed," and similarly when they occur in cancer, which similarily undergo cheesy metamorphosis; they represent the degenerated form of cancer-cells and nuclei; and so pus also undergoes cheesy metamorphosis, and its corpuscles are shriveled pus-cells. In all these the ultimate character of the bodies is the same.

We come now to a subject which has been much discussed since the appearance of the "Cellular Pathologie." No pathologist before, since the time of Cruveilhier, who was the first to accurately describe the coagula found in blood-vessels, has found a satisfactory account of their origin and history. This Virchow does, in his doctrine of thrombosis, the process by which a coagulum of blood is formed within the vessel. According to Virchow, soon after the formation of these *thrombi*, their fibrin breaks down and becomes granular. The corpuscles lose their coloring matter, become crenated, and afterwards almost entirely disappear. A yellow-white, puriform liquid appears, in which the partially altered white corpuscles remain.

The fluid is not pus, although it appears so superficially; nor is the process suppurative, since it occurs in vessels in which no signs of inflammatory action are found. Thrombi may coexist with phlebitis; or, on the other hand, inflammation of the vascular walls "may unquestionably exist when the current of blood within the vessels of the affected part is perfectly free and unobstructed." But according to Virchow, in arteritis or phlebitis, the morbid products are formed in the walls of the vessel, and not in its calibre.

The thrombus is frequently confined to the seat of its origin extending as far as in the next large vessel, into which it empties; but frequently the deposition of layers of coagulum may prolong it beyond the mouth of the branch into the trunk, in the same direction with the current of the blood. Now portions of this may be detached by the current and carried into the general circulation, constituting emboli. If thus set free it will be carried along the venous channels to the heart, and thence proceeding in the pulmonary artery, will be detained in one of its branches. This detention will of course exclude the supply of blood to the tissues fed by the vessels.

It is from these data that Virchow accounts for these metastatic abscesses, which have been generally thought to dnnote pyemia.

"If," he says, "ulceration takes place in one of the valves of the heart, not by means of the formation of pus, but in consequence of an acute or chronic softening, crumbling fragments of the surface of the valve are borne away by the stream of blood, and reach with it far distant points, as the spleen, the kidneys, etc."

It is of course denied by Virchow that such metastases originate in the introduction and conveyance of pus in the blood. He denies its absorption; but he admits that corrupted juices may enter the blood, and lay hold upon certain points, for which the former has a special affinity. (See previous page.)

It is supposed by Virchow that in this latter way another class of metastases besides those attributable to emboli are caused. To this class belongs that metastatic pleurisy which develops itself without any metastatic abscess in the lungs and that seemingly rheumatic articular affection in which no distinct deposit is found in the joints; and further, that diffuse gangrenous inflammation of the subcutaneous tissue which cannot well be accounted for, unless we suppose a more chemical mode of infection.

Besides the foregoing, the volume entitled "*Cellular Pathologie*" gives the intimate anatomy and the physiological and pathological relations of the nervous system, and a classification of other normal tissues; the subject of nutrition; fatty, amyloid, and other forms of degeneration; while a large portion of it is occupied with an account of Virchow's observations of the process and transformations in growth of a normal kind, and these should be understood in order to estimate the value of the pathological doctrines. An analysis of these must be reserved for a future occasion, and opportunity recurring, we shall do our best towards a *résumé* of Virchow's observations in these departments, reserving until then any intimation of dissent. The doctrines can be invalidated only by deciding the incorrectness of the data upon which they are founded, and this is the province of the microscopist. If the data be true, the dissidence which has from the earliest dawn of medicine prevailed with regard to every feature of disease must disappear, and empiricism in pathology give place to the previsions and principles of science. We are ourselves in great measure, like Virchow's early auditors, convinced.

Comment upon the doctrines is valueless except by those who have an equal degree, if not extent, of proficiency with Virchow in pathological observations. We accord our conviction, that at no time has a volume in medicine with scientific pretensions at all to be compared to those of the "Cellular Pathologie" appeared. Nothing can exceed the easy mastery Virchow has shown over the details of all the subject, nor the evidence of ability to cope in a truly scientific manner with the great problems everywhere encountered on the field of pathology. At every step he has transcended the *rôle* of the mere observer with his barren accumulation of fact, and has given us their *rationale*. Few observers, especially in the world of medicine, ever seem to have had any conception that nature furnishes us with the facts or phenomena alone, and not the *philosophy* of them; *that* must be developed in the mind of the observer; the only difficulty in the case being, that the philosophy must be *that* of the facts, and not a philosophy or speculation discordant with them.

This service Virchow has competently striven to render to the scientific student, and he will probably stand hereafter as the first author in the long list of periods who has succeeded in doing in anything like the same degree or the same extent —a *scientific* work in pathology. He has signalized his difference in these respects from all other observers in the most fundamental way; passing, by dint of nice critical acumen, beyond the mere fallacious interpretation which so readily springs to the natural mind on the observation of facts, to that relationship between them which, once detected, furnishes the needed criterion of the truth or falsehood of the significance we at first sight assign to them.

Medicine, no less than pathology, is replete with such fallacies, and its professors must learn that philosophy as well as observation, intellectual resources as well as industry, are equally needed. Indeed, it is no more true that philosophy is at fault in medicine than it has been in natural history or mathematics. All the sciences equally receive their gains not from the mere collator of facts, but from the student of intellectual resources, who comes in the order of the method of discovery and investigation after the other, and employs his time and capacities in *using* the facts brought by the former. Whence now does he acquire his philosophy? Certainly not from the facts or phenomena given by nature for these are solely the *subject* of his intellectual activity or life, but from some interior source, internal to himself, and

not furnished by any fact of nature. Of course, as we just said, his philosophy must involve the facts, and consequently presupposes them; but it *supposes* also an evolution of powers which belongs to him, and constitutes the difference between him and the mere collator of facts, whose apprehension of them may be proved, on analysis, to be a confusion, and whose bungling attempts at elucidation will be a blunder. Considered in this view as to the rank and importance of his work, we reaffirm our starting sentence, that Virchow has opened a new era in the science of pathology; and whatever modifications or corrections his work may undergo, they can be made in no other way than on the principles and by the methods he has himself so ably employed.

It is evident to us that the cellular pathology has given a new impulse to these investigations, and that it will induce nothing less than a very thorough revision of the present accounts of the histology of the animal tissues, and that in this work Virchow himself may be expected to go further than he has yet attained in the results of micrology. A single casual observation, induced by his account of the connective tissue of the body, has led to some results which, with improved optical means and appliances at our command, we hope to verify. Sufficient is known to justify the belief that the genesis of muscular fibrillæ will be found to be allied, with some modifications, to the formation of the connective tissue corpuscle.—*Am. Med. Monthly.*

EDITORIAL.

Rush Medical College.—We feel authorized in saying that the prospects of this long established and well known institution, were never more flattering than at the present time. Some little question, we understand, has arisen with reference to the appointment of Professors Blaney and Freer as Brigade Surgeons in the army. To avoid any misapprehension, we venture the following statement: The gentlemen mentioned will give their usual courses of lectures this winter as heretofore. Their appointment has especial reference to the establishment in this city of a great central military depot and hospital; to which latter all invalided and wounded soldiers will be conveyed and cared for, under their immediate supervision. The opportunity for clinical observation thus afforded, it will be seen, will be of the most superior character, in fact unapproachable elsewhere.

The peculiar salubrity of Chicago, as proved by statistics and general observation, has commended it to the Department as remarkably favorable for the establishment of a general military hospital, and thus the students of Rush Medical College will be supplied with means of clinical study of the very highest order.

Arrangements have also been made by which the dispensary department of the College will prove unusually rich and instructive.

In view of the foregoing facts, the friends of the institution are requested to correct the various injurious rumors which designing enemies of this College have set afloat for purposes easily to be surmised. We find it necessary to unearth the burrowing schemes of these unscrupulous and desperate foes not only of the College, but of all *honorable and legitimate* medical teaching.

Ethical.—It is not in accordance with the code, or with ordinary gentlemanly business courtesy, for a practitioner called in a case of emergency, in the absence of the regular family physician, to assume the case unless he is distinctly informed that the usual attendant is discharged.

It is unnecessary for the transient physician thus summoned to call more than half a dozen times to ascertain how the patient is getting along. Poverty is an unpleasant incident of professional life, but scheming dishonesty and parasitic fawning and unsome lavishing of unsought attention, are worse.

It is wholly needless for a man on donning the M. D. to slough off the gentleman. If the snake or other reptile predominates in your constitution, for heaven's sake put on a better looking skin when you shed the old one—code or no code.

The State Examining Board—Eight Dollars a Day, &c.—Nothing conduces to industry like good pay. Under the influence of this potent stimulus, or from a desire to "elevate the profession," the new Examining Board still continues its labors. Two candidates *per diem* emerge from their green room, either adorned with military feathers or "plucked," as the case may be. It is understood that large attention is paid to the sphenoid bone and nervous ganglia and plexuses; meanwhile one of the elect has signalized his advent to the medical staff of the grand army by anointing and poulticing a femoral hernia, mistaken for a bubo. It is God's mercy he did not put a lancet into it. It is understood he—(not the bubo or the surgeon,) but the patient—has his discharge from the army.

Seriously, is not this gross professional humbug about played out? The profession is to be congratulated that quite a number of well qualified and experienced gentlemen have been permitted by the Board to go into the service. *O si sic omnes!*

Shoulder Straps.—An angry controversy is raging which threatens to assume stupendous proportions. The majority of the newly appointed surgeons to the volunteer regiments have donned the shoulder straps of the *Majority*. To this the Medical Bureau of the regular service stoutly objects. The United States laws upon the subject are understood to place all officers in the volunteer service on a level in rank with those holding similar designations in the regular service, and bating the usual precedence of seniority, entitled to the same pay and emoluments. But the Medical Bureau, influenced by reasons readily to be surmised, cannot bear to have the *parvenues* of the medical volunteer corps come so nearly between the wind and their nobility. Hence they insist that a Brigade Surgeon shall rank only as a Major of Cavalry; a Regimental Surgeon as a Captain of the same, and assistants as Lieutenants. This simply degrades the volunteer surgeons below their legal peers in the regular service, and what is infinitely worse than the *hiatus valde deflendus* of shoulder "fixings"—despoils them of the pay of the superior rank.

We feel no hesitancy in saying that the volunteer surgeons will not only injure themselves, but permit a wholly unworthy slur to be cast upon the entire profession if they do not resist to the last extremity such a contemptuous encroachment on their legal rights. The pay of the medical service in the army is, in comparison with the duties involved, so pitiful that few can afford to undertake the position—certainly no gentleman of adequate ability and experience who has a family dependent upon him. That even this pittance should be illegally cut down, merits nothing but scorn in the attempt. We trust the "red tape" of the Department may not be permitted to strangle the patriotic vitality of the volunteer surgeons. Stick to your rights, Messieurs Surgeons of the army—including shoulder straps and all.

It may be received as an almost self-evident proposition that the medical practitioners of civil life, in this country, have had immensely greater experience than those who, what-

ever their original qualifications, have been isolated with the little squads of the regular army, during the long years of peace the country has been favored with. Self-respect, if nothing else, should prevent the former from accepting the inferior position so arrogantly in defiance of the law thrust upon them.

The officers of the army usually are gentlemen, and will favor the medical officer in insisting upon his appropriate position. Let it be done.

We cannot resist the inclination to insert, right here, words of well deserved praise and honor to certain volunteer army surgeons who *did not run* from the battle field. The comment suggests itself—Shall such surgeons be deprived of the pay and position of gentlemen?

"*Cowards—A contrast.*—That the men of Varian's Battery can live in New York is a disgrace to civilization. Future historians will point to the popular disregard of such an awful crime as the sharpest evidence of the depth of demoralization to which we had attained before the revolution which must be impending on us as its necessary result. There is enough of Buncombe receptions, but of real appreciation of true heroism how much do we see?

Two men return to New York to-night who are in the truest use of the words heroes.

These are the Surgeons of the Eighth New York Regiment, whose officers deserted, in many cases, before coming under fire. They were in the Sudley church; they arrived at it amidst the hottest rush o he mad panic, but stopped to aid in taking care of the wounded, who had been placed for shelter in it. They were warned that the enemy was approaching; they heard the cry that the enemy was bayoneting the wounded and giving no quarter; they were advised to leave by a United States regular officer, who told them that the enemy would undoubtedly shell the church on the supposition that it would be held as a defensive position as long as possible by our troops covering the retreat. This conviction was so strong with those who left last, as you will remember, that it was generally reported that the church was shelled, and I have heard a man declare that he saw it shelled. But these sur-

geons said, simply, "We cannot leave these bleeding men; it is our business to take care of them, and take care of them we must, no matter what comes of us." They unquestionably made up their minds to die, and momentarily expected the falling of the first shell among them, until, while in the midst of an amputation, there was a rush of cavalry, and a horseman's pistol was pushed in at the door, and a hoarse voice asked, "Do you surrender?"

"Certainly," answered Swift, tying an artery, and not so much as raising his head from his business.

Would to God we had a few score such men as Captains, and would to God we had a General who would blow from the cannon's mouth such sham officers as those who played soldier with the Fire Zouaves and the Eighth, and such vermin as those of Varian's."—*N. Y. Times.*

Chlorate of Potash Again.—Some of the correspondents of the medical journals are raising the question of priority in the use of chlorate of potash in mercurial ptyalism, etc. The single fact is, it is an old remedy revived and, as usual, amplified and glorified. We have known it as a common remedy for mercurial salivation, stomatitis materna, scarlatina anginosa, etc., etc., for more than twenty years, and as far back as we can recollect in medicine it was by no means considered a new remedy. The priority does not rest with this generation.

IS PRIMARY CHANCRE EVER A DERIVATIVE OF SECONDARY SYPHILIS BY INOCULATION?

Messrs. Editors:

Having recently under my observation a case, whose history seems to afford an affirmative reply to this grave question, I propose to give a brief outline of it to your readers, hoping that such an account may elicit corroborative facts from the experience of my professional brethren.

Early in April last, the patient, a young lady, in excellent health at the time, noticed a "cold sore" upon her under lip. It presented no unusual appearance and no application was

made to it until about ten days from its commencement, when its indisposition to heal, and the swelling at its base gave rise to some degree of apprehension on the part of the patient. About the same time the cervical glands began to enlarge and were painful, the mucous membrane of the fauces was red and "raw," and the patient was unable after a time to swallow any other than the blandest fluids. The lower lip became largely swollen and everted, the base of the sore extensively indurated—its surface secreting in small quantities a thin unhealthily appearing pus. No local applications of which every variety was tried, were of the slightest avail toward ameliorating the condition either of the lip or of the throat.

In May, her state was truly deplorable, the surface of the body being here and there studded with an eruption, dry and scaly, and her general appearance indicating a deeply seated cachexia. During the second week in May she began to take the Proto Iodide of Mercury, and from that time her improvement was continuous and rapid.

By the 1st of June—not quite three weeks from the first administration of the mercurial, the lip was entirely restored, but a slightly marked cicatrix remaining and that not perceptibly indurated. Her throat also was well, the cervical glands reduced to their natural size and the skin clear and free from any eruption. She then took Iron in Hoxham's tincture for several weeks with benefit to her general health and strength.

About the 1st of August, she noticed a slight renewal of the eruption, upon the face, scalp and extremities, but this vanished again under the use of the Bichloride of Mercury.

Few professional men, I think, would have, under these circumstances, entertained a doubt as to the specific character of the disease. The indurated base of the disease, the affection of the throat and skin, the well-marked cachexia, and finally the immediate and curative influence of the mercurials seem to furnish indubitable evidence to the correctness of my assumption.

In the course of my painful investigation with reference to the origin of the evil, I ascertained that the patient was engaged to be married to a young gentleman, who was and is now suffering from secondary Syphilis, his throat having been for a period of six months, from time to time the *locale* of extensive and characteristic ulcerations.

The evidence and testimony in the case, not to particularize, are convincing to my mind, that none other than the most proper and customary intercourse has ever existed between these parties, and accordingly I fully believe that the patient, by the contact alone of lip with lip, has received into her system the syphilitic virus—in short, that from the products of secondary ulceration a primary chancre in this case resulted by inoculation.

"AB UNO, DISCE OMNES."

Remarks.—The above was received too late for insertion under the appropriate head. Aside from the question which must ever remain undecided, save to the minds of those who have the immediate personal cognizance of such cases and have necessarily individual "generous confidence," there arises the query whether the inoculation might not after all have been of *primary* syphilitic virus. The modes in which this might occur will suggest themselves to any one who has observed a case of gonnorrhœal ophthalmia. Again primary syphilitic ulceration of the throat is a condition which must be recognized as occasional, and as well established as the occurrence of bubo.

The important interrogatory proposed by our correspondent can only be solved by the production of primary chancre by direct inoculation with the products of secondary syphilitic ulceration. Thus far we have no confidence in the result of experiments.

In the particular case above given the acute observer who furnishes the record, we have every reason to believe, could not have been mistaken as to the nature of the disease of the lip.

Lectures on the Diagnosis and Treatment of the Principal Forms of Paralysis of the Lower Extremities.—By E. Brown Sequard, M. D., F. R. S., &c. Pp. 118. Price $1.50.

Course of Lectures on the Physiology and Pathology of the Central Nervous System.—By the same. Pp. 276, with plates appended. Price $2.25.—Both from the Publishers, J. B. Lippincott & Co., Philadelphia, per S. C. Griggs & Co., Lake street, Chicago.

The pressure of other duties upon our time since the reception of the above works, has prevented our noticing them in detail, as we intend speedily to do. Meanwhile, in announcing them to our readers, we feel confident that they will hail their appearance with great pleasure. No physician who wishes to know anything about the nervous system, in health or disease, should fail to secure them at once. They are invaluable. In whatever particular individuals may differ from the author's conclusions, the perfection of his experiments and observations must everywhere be conceded. In this particular department of physiology, Brown Sequard stands second to no living observer, and certainly he describes what he has seen with a clearness and precision which renders it a rich treat to read his writings. But "more anon."

Graduate of Rush Med. College.—The name of W. Bates, M. D., of Ransom Centre, Mich., was inadvertently omitted from the list of graduates of Rush Med. College in the March number of this JOURNAL and the Annual Announcement. Dr. Bates is a gentleman of fine scholarship and an honor to any institution as an alumnus.

Medical Director.—Dr. J. K. Barnes has been attached to the staff of Maj. Gen. Hunter as Medical Director. It is an appointment eminently fit to be made, and will inspire general confidence in the medical corps of the army of the Northwest.

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

ANNOUNCEMENT FOR 1861-2.

THE Trustees and Faculty announce, with much pleasure, the organization of this College, with a corps of thirteen Professors, and a full course of Lectures during the next autumn and winter.

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SYLVESTER TEATS, M. D, Prosecutor to Chair of Operative Surgery, and Surgical Pathology.

PRELIMINARY TERM.

A preliminary term will commence on Wednesday, Sept. 18, 1861, and continue until the beginning of the regular term. In addition to daily instruction in the hospital wards, and clinical lectures, at least three lectures will be given daily on subjects of practical importance, by members of the Faculty, during this term. Among the subjects which will be taken up during the preliminary term are the following:—Organic Affections of the Uterus, by Prof. Taylor;—Uterine Displacements, by Prof. Barker; Inflammatory Diseases of the Uterus and Appendages, by Prof. Elliot; the Thoracic Viscera, by Prof. Childs; Auscultation and Percussion, by Prof. Flint; Syphilis, by Prof. Hamilton; Surgical Affections of the Genito-Urinary Apparatus, by Prof. Wood; Endosmosis and Exosmosis, with their Practical Applications, by Prof. Doremus.

The attention of students and practitioners is invited to the variety and practical importance of the subjects which will be treated of during the preliminary term. Although attendance is not required on the part of the student it is designed to render this term not a nominal, but an actual extension of the period of instruction.

Dissections may be prosecuted during this term as well as during the whole of the regular term.

CHICAGO

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SELECTED.

N INQUIRY INTO THE THERAPEUTIC VALUE OF SULPHATE OF MAGNESIA, OIL OF TURPENTINE AND CALOMEL,

i Inflammation of the Intestinal Mucous Membrane, especially in Dysentery.

Read before the Connecticut River Valley Medical Association, July 3, 1861.

By WM. HENRY THAYER, M. D.

In entering upon such an inquiry, which is confined to cerin methods of treating acute and chronic dysentery, it is best define clearly the disease which is intended. Dysentery, en, is an inflammation of the mucous membrane and the bmucous areolar tissue of the large intestine. These coats e more or less thickened and reddened—the thickening is metimes very great, even three or four times their normal ickness, and is the product of inflammatory exudation in and neath their tissue, which exudation may be thin and serous, more albuminous and plastic, and may even result in the rmation of pus under the mucous membrane. The mucous

membrane itself is deeply redened and very soon dotted all over with minute superficial ulcers, round and not more than an eighth of an inch in diameter. It is most common to find the mucous membrane deeply red, swollen and covered with these minute ulcers. The inflammation is usually found to extend from the anus upward more or less, semetimes only through the rectum, at others throughout the descending colon also, at others through the entire large intestine. It is rare, however, to find it above the ileo-cœcal valve. This is, in brief, the anatomy of the disease.

The symptoms are generally proportioned in severity to the extent of the inflammation. In a large part of the cases which are met with in New England, the inflammation is limited to a portion of the large intestine—it is rare to have the whole tract, from ileo-cœcal valve to anus invaded The rectum rarely escapes. When it is not inflamed, we find tenesmus wanting, and the disease is more manageable. The disease begins with general febrile action, some uneasiness in the bowels, loose evacuations, pain, and in the course of twenty-four hours the characteristic discharges, attended with tenesmus, are established. These discharges are generally small, from one drachm to one ounce of mucus, blood and serum, without fæcal matter or odor. When small they are bloody mucus alone, when larger there is often serum with them. As they lie in the vessel they resemble masses of bloody jelly or sometimes broken bits of membrane, and when there is much serum, it is necessary to lift up portions with a stick when the stringy transparent mucus, more or less stained with blood, is distinctly recognized. The evacuations vary in frequency from the smallest number up to so many that the patient has hardly left the vessel before he is called by another—and the severe pain in the rectum with distressing tenesmus are almost continual. Tenderness over part of the abdomen is a common symptom. It usually marks the extent of the inflammation in the large intestine. Besides the tenderness however, along the colon, we almost invariably find a spot just below the umbilicus in the median line, which is painful on pressure, evidently not from subjacent inflammation—for the small intestine lies beneath. I have considered the extent of tenderness—indicating the extent of the inflamed portion—a valuable aid in early prognosis, along with the condition of the pulse; but there are cases in which there is no tenderness whatever on pressure over any part of the abdomen, although in all other respects well-marked cases of dysentery.

Dysentery sometimes occurs as a sequel of British typhus, and in these cases it is usually unaccompanied by tenderness. I have seen it so in some of these cases which were fatal after several weeks' illness, and presented after death evidences of intense inflammation of the whole large intestine—thickening, reddening and ulceration.

Tenderness and tenesmus, therefore, may be occasionally wanting; but we always have the characteristic discharges of mucus more or less mingled with blood.

It is not my intention to occupy your time with a complete account of the pathology of dysentery. Since I have said so much, however, I will merely add that vesical tenesmus is frequently a distressing accompaniment of dysentery, and that sometimes we have daily vomiting, but only in very grave cases. Indeed, continued vomiting must induce us to make an unfavorable prognosis.

Such is dysentery, as we see it in the large majority of cases in New England, a painful but not a dangerous disease, if well treated.

There are slight varieties in the character of the evacuations—in the amount of serum, or the occasional presence of bile; I have seen a case in which the blood was entirely wanting, the discharges consisting wholly, from beginning to end, of thick gelatinous transparent mucus, with tenesmus, pain and tenderness, as usual.

When dysentery is epidemic, we may find it having a much graver type than in the sporadic cases which we ordinarily meet with, and resembling more nearly the severe disease of tropical climates and camps. And we may occasionally meet with a sporadic case of violent and fatal character, just as we sometimes see a sporadic case of cholera asphyxia. I remember seeing a young man attacked with dysentery severely, who, before twenty-four hours had passed, was in complete collapse, cold, livid and nearly pulseless, and on the third day was dead. Such a case belongs to the same class with the congestive form of intermittent fever and the malignant form of scarlet fever. It has an element extraneous to the usual character of dysentery, an element which it in common with other acute affections in the rare instances has of the collapse just mentioned.

These cases are exceptional in their treatment, as they are in their nature. The course of medicinal treatment which I shall recommend does not refer to them, but to the cases of dysentery which we most commonly meet with.

There are three indispensables in the treatment of all cases. These are, absolute rest in a recumbent position, constant warmth of the surface, and a limitation of ingesta to a bland liquid diet.

After these comes the medicinal treatment. I will premise by reminding you that the views on the proper treatment of dysentery have varied from time to time for forty or fifty years, partly by the influence of the medical reports of men of the different countries, who have found so marked a variation in the type of the disease in different climates, that they have naturally advocated entirely different methods, which have sometimes been adopted by others with too little regard to varieties of climate and consequent variations of type. The common methods have also been changed from time to time for sufficient reason found in actual changes in the character of the disease—which has in one epidemic obstinately resisted treatment to which it has been amenable at another time.

Thus the East Indian treatment was adopted in Europe and America—and in a climate so different as that of New England, and a disease so little like East Indian dysentery, blood letting and salivation were the standard treatment at one time though apparently with no more reason for it than there would be for that treatment indiscriminately at the present time. Cullen considered the troublesome symptoms in dysentery to be produced by the retention of hardened fæces, and his treatment by purgatives of a mild character has been much followed. I have sometimes seen dysentery begin abruptly with discharges of blood and mucus without any previous evacuation of the bowels. In such a case fæces would probably remain and produce more or less irritation. But in most cases there are several loose, more or less fœcal, evacuations, fully emptying the bowels, before the mucous discharges commence and cathartics, for the purpose proposed, are needless.

Since the morbid anatomy of dysentery has been more accurately known, a revulsion of opinion has taken place in the medical profession. I well recollect the tone of the late Dr. Enoch Hale, of Boston, an earnest pathologist, on the occasion of the autopsy of a man who died of malignant dysentery at the Massachusetts General Hospital, in 1843, when the intestine was opened and exhibited an unbroken extent of intense inflammation from the ileo-cœcal valve to the anus, and not a particle of fæcal matter to be seen anywhere—when he denounced in no measured terms the plan of applying active purgatives to such a mucous membrane as that, as a proceed

ing little short of barbarism. So a considerable part of the profession, with the same views, gave up purgatives, and adopted calomel and opium, acetate of lead and opium, or opium alone. Many holding on to the idea of the scybala, give opium and cathartics on alternate days.

Since 1852, I have followed a very different plan in the treatment of dysentery. My patient is put at once on frequently repeated small doses of a saline cathartic. I commonly employ the sulphate of magnesia in doses of one drachm, repeated every four hours. The object is not to get rid of scybala. If I had any reason to suspect their presence, I should give a full cathartic dose of castor oil at once. The object is to relieve the inflammation (or if used at the outset, the congestion) of the mucous membrane by procuring a free serous discharge from its surface. That this effect is produced to the great relief of the symptoms, and usually to the speedy cure of the disease, I have frequent evidence. This will be better understood, if I describe the course. A patient is having frequent dysenteric discharges, with all the other symptoms. He gets one drachm of sulphate of magnesia in concentrated solution, (which is important,) every four hours. The next day I find that his discharges have become large and watery, with little mucus and less blood, are less frequent and less painful. If they have thus improved, I reduce the frequency of the salts, but have it continued every six hours. On the second day my patient has only one or two discharges, watery, and absolutely without blood or mucus. The medicine is ordered once in eight hours, and the next day I find he has had no evacuation at all, and the medicine is omitted. This is the end of the case—for he goes two or three days without any evacuation, if he is careful, and then has a natural discharge. The pain and tenesmus have usually disappeared at the end of the first twenty-four hours, without any opium whatever. This is the history of four cases in five of dysentery when I see them at the beginning. If the case is more advanced, it does not yield so readily, and may require an opiate at night, while the salts are given during the day.

I have sometimes given the salts less frequently, with less favorable results—I have had reason to think that where the symptoms did not yield, it was because the medicine was taken at too long intervals. I prefer to withhold opium, in order that the salts may have their full effect; during the first day, the patient can be soothed and relieved by sinapisms and fomentations, with flannel bands around the body; and after this the pain is relieved.

My own favorable experience of this mode of treatment has been corroborated by others. I am unable to recollect the source from which I first derived the idea, but I have endeavored ever since to disseminate it, and I have had the pleasure within the last six months of seeing the plan advocated in several medical journals.

It is possible that the efficacious use of laxatives is not limited to sulphate of magnesia or to saline substances. I had a theory of their *modus operandi*, derived partly from Golding Bird—that they produced their effect by causing an exosmose of serous fluid from the inflamed mucous membrane, from which arose the necessity of using a concentrated solution. But some experiments by Headland seem to prove that the salts are taken up into the circulation before reaching the inflamed large intestine, and therefore some other explanation of their mode of action must be sought, which shall equally well account for the successful operation of some other cathartics administered in the same manner—that is, in frequently-repeated small doses. I refer particularly to castor oil. By the recommendation of Dr. West, the accomplished senior physician to the Royal Infirmary for Children, London, I have often found great benefit from the use of castor oil in small doses often repeated, in the dysentery of children. I do not know that the sulphate of magnesia would not operate as well with children as it does with adults, but I have never used it. Dr. West's formula for the castor oil emulsion is the following:

R. Ol. Ricini, one drachm; Pulv. Acaciæ, one scruple; Syrupi Simplicis, one drachm; Tinct. Opii, four drops; Aquæ Floræ Aurantii, seven drachms. M. Ft. Mistura. A teaspoonful to be given every four hours.

I have employed it with very happy results in many cases of dysentery of a somewhat chronic character in children. It has the advantage of being not unpalatable—children generally take it without any objection.

Like the epsom salts, castor oil in some way reduces the inflammation of the mucous membrane, and the secretion of bloody mucus rapidly diminishes, simultaneously with the abatement of irritation and pain.

I have spoken thus far of dysentery and its successful treatment, as it is seen in a large majority of the cases in New England. I have had but little experience with malignant dysentery or with grave epidemics, for they are extremely

rare in New England. I have no reason to think that the saline treatment would have the slightest influence in malignant dysentery. But in most of the cases that are met with during even a serious epidemic, I have little doubt that, if employed early, it will be found as effectual as it is in the milder form that it takes among us almost every summer and autumn. Its use is not inconsistent with the employment of stimulants, when they are required.

If, nevertheless, there are at any time non-malignant cases which do not yield at all to the use of saline medicines, or which, after a partial improvement, continue in a subacute form, what course promises the greatest and promptest success?

Let me first say that if the dysentery has yielded, but the patient is affected with diarrhœa, astringents and antacids with opium are the most appropriate remedies.

If after two or three days' employment of the saline, the discharges continue to be of bloody mucus, and there is little abatement of the other symptoms, it is time to resort to other expedients. In that case, I presume, no treatment promises better than a mercurial—a small dose of calomel with opium every six hours—under which we may reasonably expect a decided change for the better in the character of the evacuations, before enough has been taken to cause any considerable risk of ptyalism, except where there is an unusual sensitiveness to its effects.

I should say that I have very rarely been obliged to resort to mercurials with adults—for I have found very few cases that did not yield to the sulphate of magnesia. But in the "inflammatory dirrhœa" (West) of children, I have frequently prescribed small and repeated doses of calomel with opium, when other measures failed, and usually with promptly good effect.

From some experience with the oil of turpentine, I am inclined to regard it as a remedy very similar to mercury in its effects upon the intestinal mucous membrane. I have employed it more especially in the dysentery of children. When the castor oil emulsion has been taken several days or a week, and the child, after a partial abatement of the symptoms, has ceased to improve, the addition of a few drops of the oil of turpentine to each dose often has a decided effect upon the symptoms, so that the improvement in the evacuations begins again, and in a few days more they have acquired their healthy character and number. This is the history of

favorable cases, which in infants are of course less frequent than in adults.

The value of turpentine in chronic inflammations of the mucous membrane is perhaps sufficiently well known. Professor Wood has brought it into notice as a very useful remedy in an advanced stage of typhoid fever, especially on account of its prompt effect upon the ulcers of Peyer's patches, in promoting their cicatrization.

Three cases of chronic inflammation of the large intestine of moderate extent, mostly in the rectum in two of the cases, have been under my care within a few months past. They were all treated with the oil of turpentine in three daily doses; all began to improve in a few days, and two entirely recovered.

Turpentine is especially useful in dysentery when the first stage of active inflammation has passed, with dysenteric symptoms still remaining, and the patient presenting an appearance of morbid prostration. Exhibiting, in fact, a condition evidently requiring stimulation: feeble pulse, and livid extremities, with tendency to coldness of the surface, and perhaps the tongue dry and the teeth covereed with sordes. Dr. Wood makes the dry black tongue and the sordes the indication for the use of turpentine in fever. He says: "There is a particular state of fever usually attended with much danger, in which we have found this remedy uniformly successful. The condition of things alluded to, is one which occurs in the latter stages of typhoid fevers or lingering remittents, in which the tongue, having begun to throw off its load of fur in patches, had suddenly ceased to clean itself, and becomes dry and brownish. The skin is at the same time dry, the bowels torbid and distended with flatus, and the patient sometimes affected with slight delirium. Under the use of small doses of oil of turpentine, frequently repeated, the tongue becomes moist and again coated, the tympanitic state of the bowels disappears, and the patient goes on to recover as in a favorable case of fever. We are disposed to ascribe the effect to a healthy change produced by the oil in the ulcerated surface of the intestines." (*U. S. Dispensatory*, Art: *Oleum Terebinthinæ.*)

With regard to the use of calomel in dysentery, there appears to be reason for doubt that its efficacy depends upon any direct influence over the functions of the liver, as is very frequently alleged by medical men, or that the necessity for its exhibition rests on any hepatic complication. I shall only

argue against these suppositions by the statement of two or three facts of modern observation.

It has been inferred from the green color of the evacuations that is often seen after calomel has been taken, that an excessive flow of bile had taken place into the intestine, under the immediate influence of the mercurial upon the liver. "The green stools," says Pereira, "which sometimes follow the administration of calomel to children, are usually supposed to arise from the action of this medicine on the liver; though Teller thinks it depends on alterations produced in the condition of the blood. The same colored stools are frequently observed when no mercury has been used, and there does not appear to be any just ground for abscribing them to the calomel." It will be remembered that one of the first results of a slight exposure to the cold in an infant, is the passage of green stoods, with griping pain. West says, that in some cases the green discharges probably depend on the action of the acids of the alimentary canal upon the coloring matter of the bile (biliverdine) in the evacuations—which is probably the explanation of these cases of green stools following a chill. When the discharges are greenish in the course of dysentery, Golding Bird's investigations have rendered it probable that it results partly from the presence of altered blood in the evacuations.

Thus we have one fact—that the green stools are very common under various circumstances, unconnected with the use of calomel.

Another fact is, on the authority of Dr. Thudichum, of London, that calomel, whether it purges or not, does not increase the quantity of bile excreted, but on the contrary it diminishes it. If the liver is relieved by the use of calomel, it is through its effect upon the intestines and the portal circulation, just as it would be relieved by other cathartics. This is proved by the experiments of H. Nasse, Kolliker, and H. Muller. The green color of the stools which follow the use of calomel is really due to sub-sulphide of mercury, just as the black color of stools following the use of preparations of iron, is due to sub-sulphide of iron. (*Thudichum.*)

We have reason, then, to know that calomel does not produce that increase in the biliary secretion and discharge, which many have considered indispensable to the relief of various cases of intestinal disturbance. And we may fairly infer that whatever advantage is derived from the use of calomel, as of turpentine in dysentery, is due to its direct effect upon the capillaries of the intestine, as a special stimulant.

Whether turpentine might not be employed with as great advantage as calomel in cases that seem to require either of them, my own experience will not allow me to say. I have seldom used calomel since I began to treat dysentery with sulphate of magnesia, nine years ago. Calomel would be unsafe in a very advanced stage of the disease, when there was any pus in the discharges, and the vital force was low—while these are the very conditions in which the use of turpentine, a nervous stimulant, would be especially appropriate. (*Berkshire Medical Journal.*)

SANITARY SCIENCE IN THE CAMP.

Being the Conclusions of the Commission appointed by the British Government, to Inquire into the Sanitary Condition of the Army in the Crimea.

BY GEORGE W. WILDE, M. D., of London.

Although it has been my fortune to spend a considerable portion of my professional life abroad, I still take a deep interest in the political affairs of my native country, and would gladly add whatever of influence or power I may possess to sustain a Government, the wisest and most beneficient ever created, in its efforts to maintain its supremacy. That the Federal Government will have an army of any dimensions which it may require, I do not doubt; nor do I doubt the results of the war. The old flag—the stars and stripes—will long continue to float an emblem of a united and a free government; not only over every inch of our national domain, but in every harbor of the civilized world.

But the question of vital interest to me is, will there not be an immense and needless sacrifice of life from preventible diseases in an army so quickly collected from among the people, and so unaccustomed to the habits and pursuits of the soldier's life? I am glad to learn that this subject has already engaged your attention, and that measures have been taken by government to remedy these evils.

My attention has been repeatedly called to the sanitary condition of troops in my travels on the continent and

in the East; and my observations have given me the liveliest apprehensions in regard to the health of the vast army now assembled along the borders of the Southern States. Unless the highest degree of intelligence in matters relating to the management of troops in camp, and in the field, is possessed by the medical staff, the disasters by sickness are far more to be apprehended than reverses on the battle-field; as American physicians have had little actual experience in military life, and as the medical literature of military surgery has to be obtained, for the most part, from abroad.

Yet, it has occurred to me, that there is a large fund of facts relating to the hygiene of armies contained in public documents, and hence quite inaccessible—at least to the majority of medical men. The record of many of these investigations are rich in the fruits of sanitary science applied to armies. I believe I cannot do my professional brethren at home, who are now engaged in their country's service, a better service than by giving at some length, and in detail, except where condensation is possible, the results of some of these official inquiries.

The following are the conclusions of the Sanitary Commission sent to the Crimea by the British government, to inquire into the sanitary condition of the troops. They will be seen to embrace the most important facts relating to the hygiene of camps, and are the result of a series of long and laborious observations:

PRACTICAL CONCLUSIONS RESPECTING THE CAMP.

I. That by far the greater part of the disease and mortality existing in the camp, when the Commission arrived in the Crimea, was due to zymotic maladies, such as cholera, fever, diarrhœa, and dysentery.

That besides the effects of topographical and climatic peculiarities connected with the occupation, and making allowance for the predisposing influence of other conditions, to which the troops had been exposed, the prevalence of zymotic maladies was obviously connected with local favoring causes, essentially the same in kind as those observed in civil life, especially in rural districts, namely:

Damp.

Impure Air.

(Although in a minor degree) Impure Water.

II. Attacks of zymotic disease were observed to be connected with the three following sources of dampness:

A wet subsoil; a retentive surface soil; confined locality.

1. Of these three conditions, *a wet subsoil* occasioned the largest proportional amount of sickness.

The experience of the 79th Regiment, and that of the 31st and Royal Artillery, who were successively camped on the same ground, below Marine Heights, proves that one of the worst sites for a camp is that in which a thin bed of porous material rests upon an impervious bed beneath, which retains the water, and keeps the subsoil charged with it, while the surface may afford little or no indication of the fact.

Dangerous sites of this kind were often marked by a greener or more vigorous vegetation than that of the surrounding district, or by water-springs coming to the surface, or by evening fogs setting over them sooner than over the adjacent country.

Before selecting positions for camps in unknown ground, it would be very advisable to dig trial holes a few feet deep, to ascertain what is the condition of the subsoil drainage, and not risk the health of the men in camping on ground in which these trial holes show the presence of water near the surface.

Should it be necessary, for military reasons, to hold a position on a wet subsoil, the whole should, if practicable, be thoroughly drained by deep trenches, and if there be a hill-side or water-shed above the ground, the surface water from it should be turned aside from the site by deep, catch-water drains, as was done with the camp of the Highland Division at Kamara.

If the position be such that deep trenching and draining cannot be carried out, it is in the highest degree probable that if held for any length of time, it will be at a considerable sacrifice of the force.

2. *The retentive character of clay surface soils*, and the difficulty of draining such soils, render it advisable to avoid them as camping-grounds, when it is possible to do so.

Wet clay soils keep the air near the ground damp and cold, and they affect the atmosphere of tents and huts in a similar manner. There was sufficient proof of their injurious effects on the health of troops in the Crimea.

Where such soils must be occupied, for military reasons, the defects in the natural drainage should be remedied, as far as practicable, by trenching the ground, and by trenching the site of every hut and tent separately, connecting the hut and tent drains with the larger trenches. In this way, not only are the sites and the vicinity of the huts and tents kept com-

paratively dry, but the surface water is more readily removed, the exhalations from the damp soil diminished, and the air purified. The experience of the army in the Crimea showed the very beneficial effects of this surface drainage and trenching on the health of the troops.

3. *Dampness of the air, arising from the nature of the locality*, proceeds from the topographical peculiarities of the ground preventing a free circulation of the air, and the atmosphere becoming stagnant, and charged with moisture and emanations from the ground. The valley of Karani above Kadikoi afforded an illustration of this, in certain states of the weather.

It was observed in other parts of the seat of the war in the East, that damp white mists, settling in valley or hollows occupied by troops, had been the precursors of epidemic diseases, especially of cholera. All valleys are at times exposed to similar occurrences, especially such as contain stagnant lakes. An unhealthy and stagnant state of the air is sometimes increased by brushwood or trees.

There is often no escape from epidemic sickness occuring among troops from the occupation of such positions; they should, therefore, be avoided or abandoned.

III. The evils resultiug from these local causes of dampness were not unfrequently aggravated by the manner of pitching tents and erecting huts. Want of due preparation of the ground and defective drainage of the site, often led to a damp state of the air within huts and tents, and induced a tendency to fevers.

Deep trenching round the tent-site, as already mentioned, is the best remedy, and in case of huts, the site should be isolated from the surrounding ground, and the area to be occupied by the hut, drained by a trench dug round it at least a foot below the level of the floor.

If it be not practicable to drain the subsoil, and if the position must be held, adequate provision should be made with any materials at hand for raising the beds of the men above the ground.

Huts should never be banked up with earth against the wood. The experience in the Crimea has shown that it is a dangerous practice, for it used to be a common cause of fevers. An interior lining, even of old newspaper, affords a much better, and at the same time a perfectly safe protection from draughts.

The flooring of huts should be occasionally raised, the sur-

face of the ground below cleansed, and quicklime and charcoal strewed over it.

For hospital huts, an interior lining of boards, or building a rough rubble stone wall outside, as was done in many of the regimental hospitals, affords the requisite protection from weather, and from sun heat.

IV. The camp before Sebastopol was, generally, remarkably clean when first visited; but there were in certain situations sources of atmospheric impurity from putrescent organic effluvia, likely to influence injuriously the health of the troops. The chief of these were:

Picketting-grounds, and manure heaps.

One or two slaughtering-places, and latterly the large cattle depot and slaughtering-place at Kadikoi.

The graveyards and putrid marsh near Balaklava.

Latrines kept too long open, and exposing too large a surface.

When an army can shift its ground at will, danger to health from similar evils can always be avoided by doing so.

When, on the other hand, an army is tied to its position for a length of time, the camp becomes a town, and is subject to all the sanitary defects of towns, as these existed before the introduction of the first great step that was taken for improving the public health, namely, the introduction of paving.

Picketting of horses saturates the ground they occupy with organic matter. In like manner, accumulations of manure, if allowed to remain, saturate the ground they cover. Filth of any kind is washed into the ground by the rains, or trodden into by the steps of men and animals, and must necessarily give off impure emanations under the joint action of sun, heat and moisture.

To avoid the injurious consequences likely to arise from these circumstances, it is indispensably necessary to observe the most scrupulous cleanliness over the whole surface and vicinity of a camp. All refuse should be at once swept up, and removed to a distance. None should ever be allowed to accumulate within, or in the immediate vicinity of a camp.

Bones and refuse of food can be most easily disposed of by burial.

Stable litter and all inflammable refuse should be carefully burned. The usual method of forming heaps of litter and firing it, is imperfect. Before being fired, it should always be opened up, to admit the air to dry it, and to expedite the combustion. Manure heaps burn with difficulty, if left on the ground for any length of time before they are fired.

Carcases of animals and offal should be buried to a sufficient depth below the surface. Three feet is enough under ordinary circumstances. Refuse charcoal dust thrown over tainted ground will assist in deodorizing it, or, if that be not obtainable, the burning of stable litter on the spot will furnish sufficient charcoal for the purpose.

Latrines should be made narrow and deep; a quantity of earth should be thrown into them each day, until they are filled within two feet of the surface, after which the latrine should be filled up, and another dug.

When an army requires to occupy the same surface of ground for years, it would be unsafe to bury the refuse in the ground, because eventually the soil would become saturated with organic matter, and dangerous to health.

In such a case, the construction of furnaces to consume every organic product of the camp, is far the best and safest proceeding. Speedy collection, removal, and destruction by fire of all such refuse matters obviates any risk of danger from them.

V. *Atmospheric impurities arising from overcrowding and defective ventilation of tents and huts*, were a frequent predisposing cause of zymotic disease.

Were it practicable in warfare to diminish materially the number of men sleeping in tents, it would be advisable to do so.

But considering the limited transport at the command of an army in the field, the injurious consequences of overcrowding may, to a considerable extent, be obviated by a free ventilation of huts, and by improving the construction of tents and marquees, by introducing effectual means of ventilation round the top of the poles.

In the case of huts, ridge ventilation is the most efficient.

Lime-washing huts inside, especially hospital huts, purifies the air; lime-washing of huts outside protects them, to a certain extent, from the intense sun's rays, and keeps them cooler within.

The usual effects of striking tents and shifting ground is an excellent means of avoiding the effects of saturation of the earth by emanations proceeding from the breath and bodies of the men.

VI. The condition in which the water was drawn for use in the camp was likely, especially during the prevalence of cholera, to aggravate the severity of the disease, although not to a great degree.

It is always desirable that water for drinking and cooking purposes should be as nearly as possible destitute of color, taste, or smell. Anything that interferes with these three natural tests is more or less injurious to health; but marsh water, however apparently pure, is not wholesome.

All engineering works for supplying camps with water should comprehend—

The selection of the purest obtainable source.

The delivering the water for use as pure as it is at its source.

If it be necessary to pound the water, the tanks should be covered.

Water should, if practicable at all, never be drawn by dipping, if it be rendered muddy in the act of being so drawn.

If a source of water of sufficient purity be not obtainable, the water should be filtered. A filter may be made with sorted gravel, clean sand, and charcoal.

Every trough for supplying horses should have a separate inlet and overflow.

GENERAL CONCLUSIONS FROM THE WHOLE EXPERIENCE.

I. That as scurvy, and the forms of disease connected with it, almost disappeared from the army under the influence of improved diet, clothing, etc., so, in like manner, zymotic diseases, the destructive effects of which mainly depend on breathing a humid, tainted atmosphere, declined on the carrying out of suitable sanitary works and measures.

II. That men just arrived in a new country are especially liable to suffer from prevailing zymotic maladies. That any given number of reinforcements will not compensate to the service for the loss of the same number of the original force from these diseases, and hence the necessity for effective sanitary precautions is doubly imperative, whether as regards the abatement of local favoring conditions, or the discovery and immediate treatment of the premonitory stages.

III. As the result of their whole experience, the Commissioners beg to express their opinion, that, inasmuch as the neglect of military hygiene, whether as regards the soldier personally, or the sanitary condition of camps, barracks, and hospitals, has hitherto, in all countries, climates, and seasons, been the cause of the largest amount of loss in armies, the whole subject, closely connected as it is with the physical efficiency of Her Majesty's forces, demands in future a practical development commensurate with its importance to the public service.—*Am. Med. Times.*

DESCRIPTION OF THE "BRIGADE CASE,"

DESIGNED BY

H. S. HEWIT, M. D.,

Formerly Assistant Surgeon U. S. A.

AND RESPECTFULLY SUBMITTED FOR THE APPROVAL OF THE MEDICAL STAFF OF THE U. S. ARMY.

The case described below is one designed by the writer to meet a surgical want hitherto unsatisfied. It is intended to contain every instrument which can be useful in any emergency, and, with the instruments already in possession of the staff, will furnish a complete *armamentarium chirurgicum.*

It consists of the following instruments:

For Amputations.—Four amputating knives; two amputating scalpels; one amputating tenaculum; one capital saw; one finger saw; two spiral tourniquets.

For Trephining.—Two trephines; one Hey's saw; one elevator.

Forceps.—One Liston's straight bone forceps; one Isaac's bayonet do.; two Lüer's bone-gnawing forceps; one Strohmeyer's stumpholding forceps; two tooth forceps; two Lüer's artery forceps; one torsion forceps; one thumb forceps; one mouse-tooth forceps.

Saws.—One Strohmeyer's saw; one saw à dos mobile; one saw guard.

Trocars and Catheters.—One curved rectum trocar; one straight trocar; one partition catheter; five silver catheters, 1, 3, 5, 7, 9; one silver catheter for prostrate, 12; one steel staff grooved; twelve English flexible catheters.

Needles.—One Mott's artery needle; one right Deschamps' artery needle; one left Deschamps' artery needle.

Bistouries and Scalpels, &c., &c.—One sharp-pointed straight bistoury; one probe-pointed straight bistoury; one probe-pointed curved bistoury; one sharp-pointed curved bistoury; one hernia bistoury; four scalpels; one tenaculum; two double hooks, sharp; two double hooks, blunt; two retractors; one pair of Musseux's forceps; one pair of polypus forceps; one pair of dressing forceps; one pair of heavy straight scissors; one pair of ordinary straight scissors; one pair of curved scissors; one silver director; one steel director;

one Schleswig bullet forceps; one Hamilton's bullet forceps; two double trachea tubes; one Lüer's articulated œsophagus tube; one wire suture needle; two eye needles; one vaccinating scarificator; one hard rubber four-ounce syringe; silver probes, wire, and suture silk.

It will be observed that amputating, trephining, resecting, and artery instruments are here comprised, together with tracheotomy tubes, trocars, and the silver suture needle.

The dimensions of the case are, length, 18 inches; breadth, 13¾ inches; depth, 2½ inches. The weight is 19¾ pounds, and with the containing leather valise, like case, will be upwards of thirty pounds.

It is intended that the exterior case shall be made five inches in depth, the lid to contain rollers two and a half inches wide by seven yards long, placed on end, and lint, cerate, oil, chloroform, and sponges, so that with this case occupying no more room than a common travelling valise, any amputation, resection, ligature, or other operation can be performed, or any wound dressed except those requiring spints.

The undersigned respectfully recommends that one case similar to the above be furnished to every surgeon and medical director of the regular army, and to every brigade surgeon of the volunteer forces.

The case itself is made of tin, japanned, and is as compact and light as a complete case can be made.

It is not intended for hand transportation, excepting for short distances. It is of convenient size for any other conveyance or for packing.

The instruments have been made and arranged by Mr. Jules Teincken, of Astor Place, agent for A. Lüer, of Paris, whose name alone is a guarantee of excellence of material and workmanship.

The present aspect of surgery, and the experience of the Schleswig-Holstein war and the Crimean war, urge imperatively upon all military surgeons the cultivation, according to their means and circumstances, of conservative surgery. The above case furnishes all the instruments necessary for resecting bones or joints, excepting the chain saw, which has been omitted on account of its extreme liability to get out of order. The saws in the case, it is believed, will answer every purpose of the chain saw.

The long, hollow, silver suture needle is added under the belief that silver or other metallic sutures are destined to occupy a high place in both ordinary and conservative surgery.

It is the intention of the writer to make trial of the silver thread if he has opportunity (silver wire twisted over silk) both as ligatures and sutures, and report the result.

The high claims of the profession, the future of medical and surgical science, and the great and ever present cause of humanity urge the profession, both military and civil, to high heroic and noble enterprise.

Let us see that history record that no life or limb was sacrificed in the present war which sanitary science and foresight or surgical skill could have saved; and let our profession seize the present glorious opportunity to demonstrate its value and utility in times of real danger and distress. If quackery hereafter has a front to show, it will be simply our own fault. —*Am. Med. Times.*

THE CHEMICAL TREATMENT OF DISEASE.

BY C. B. HALL, M. D.

The short time I can spare for an essay could be readily occupied in naming the different hypothesis advanced for the explanation of the *modus operandi* of medicines, all at variance with one another, all failing when put to the test of practice, and yet none without some grounds of physiological truth for their foundation.

I propose, therefore, that we leave as we find them those rules and principles of nosology that have stood already the experience of men of learning and thought, and devote a few minutes to the consideration of Liebig and Muller's opinion that inflammation is an oxydized state of the proteine, and that all disease is the result of disarrangement of the affinities of particles, and see how far a chemical treatment may serve as an adjunct to a regular course of medicine. We do know of strange animal changes constantly attending the animal economy. Thus, in the normal state, the gastric juice, the almost first stage in nutrition, is acidulous, while the blood, the result of this digestion, is alkaline. Again, we have the secretion from the liver, the largest secreting organ in the body, with an alkaline base, while the product of the no less important organs, the kidneys, is uric acid. We have also the oleaginous and albuminous secretions, the representatives of

nitrogen and carbon, as we find others of oxygen and hydrogen, the two other elementary principles of all organic compounds. This in the healthy state. How innumerable the effects of their slightest variation in disease! not acknowledging the theory that this constitutes disease, but simply viewing them as coincidents and their regulation as concomitants.

Take, for instance, the simplest form of congestion, or perhaps more properly, torpor of the liver, found in the moderate drinker, particularly the beer-drinker, and more particularly when in moderation he has taken a little extra, with a few glasses of spirit; you find the tongue coated with heavy white fur, the gums pale and the fauces dry, the patient complaining not so much of constipation of the bowels as a difficulty in passing what he calls a gummy, sticky sort of substance which clings to him with the tenacity almost immovable, and of a dark green color, with very little odor, and attended by smarting, but no pain. The usual remedy for this is blue pill and black draught, or, as an old friend of mine in the country takes, ten grains of submurias hyd., followed by salts and senna. Chemically this is an acidulous excess, both in stomach and liver, and ten grains of carbonate of soda to act on the stomach, and ten of bitart. potass. to neutralize the hepatic secretion, in a glass of cold water, will often effect a cure in a few hours.

One of the most troublesome attendants of bilious as well as of infantile remittent fever, is the constant passing of green bile with mucus, showing its irritating effect on the membrane thus provoking the febrile action and otherwise retarding the cure. I do not mean to say that liq. potass. or any other preparation of that alkali will cure bilious fever, but there is no doubt their use will correct this abnormal secretion, and thus effect one of the most important indications.

On the treatment of dysentery or diarrhœa, or whatever name you give to the various bowel complaints of children you find a double action, or one extreme running into the other. If you are consulted in the early stages, you find the tongue slightly coated, but white, appearing as if the child had just taken a drink of milk. The stools green, somewhat painful, but not frequent, &c. This is usually treated with antacids, as eyd. c. creta, with creta c. opii cemp., or bar soda, so that I have no particular point to call your attention to. But what is far more likely, you do not see the case till various pills and potions have been administered by the time

onfiding parents, suggested by the too-knowing neighbors, *hose children have been exactly the same*, and cured by the ar-famed remedy. You find the tongue coated in the centre vith a dirty white, inclining to brown, the tip and sides red, he fauces, gums and lips of the same color; a painful expres-ion of countenance, with a whining, feeble cry, constantly icking the lips or ends of its fingers; stools more frequent, f the color of the coating of the tongue, more painful before ach motion, and increasing in frequency, &c., and you will nvariably find an alkaline reaction, the stools often effervesc-ng with nitric acid. Whatever course of treatment you would uggest, you would find its efficacy most wonderfully advanced y an acid accompaniment, such as tr. ferri muriatis. Or still urther, you might find the eye sunken, with a dark areola; kin something of the color of the tongue; flesh full, but labby and doughy, with other strumous indications. Here is n opportunity for a double chemical action. Feed the child n starch, and give diluted nitric acid. You will not only fur-ish the best nourishment, and counteract the excess of alkali n the system, but nitric acid converts the starch into oxalic cid, than which no remedy appears to have more specific power over the strumous diathesis.

Take another familiar example with children, one in which you have no doubt been sorely tried, and wished, like the man of old, "your enemy would write a book" on it. A child at breast—the mother, strong and healthy, eats her meals with relish, has plenty of milk for the child, even more than it requires. This you find, on standing in the glasses, rich, and covered with thick, almost buttery cream. She tells you the child nurses freely, and throws it up without any curdling. Bowels inactive for a few days, then three or four motions a day for a few more. Pulse, feverish, child pale, fretful, crying and whining constantly. Here is a case of infantile indiges-tion, tending to cachexia. You prescribe infusion of cinchona, or some tonic, but without avail. Chemistry says, if you give that child sugar, it will convert the casein of the milk into lactic acid, the natural gastric juice of the child, and experi-ence confirms the magical effect.

A white tongue is not characteristic of pneumonia (I mean a clean white, like milk, distinguished from the snow white of inflammation); but your experience will call to mind many cases of this formidable disease with this anomalous atten-dant, and its no inconstant fellow symptoms of an acidulous action, the discharge of green bile. The chemical treatment

in this case is to combine liquor potassæ or bi-tart. potass. with your other remedies.

Rheumatism has been so frequently associated with excess of acid, that theorists have, for a few years past, laid down an alkaline course of treatment—but that excess of acid in the acute, or of alkali in the chronic, is symptomatic of the disease, I utterly deny. And here, in an opinion at variance with such a name as Golding Bird, let me ask if your own observations will not join me in the assertion that there is a marked difference between rheumatism in Europe and rheumatism in Canada, particularly those of you who have had an opportunity of seeing cases in the hospitals of London as well as this country. Nothing struck me more forcibly. Not to detain you with the question just now, I may allude to the well known fact that in England the chronic form tends to rheumatic gout, while in this country it assumes the nature of palsy. However, that the excretions in some cases, and often in certain stages of the same case, will acknowledge the test of alkaline and acid excess respectively, I think I may safely state as proven; hence it is our duty to seek out the adominitions that chemistry suggests, and govern ourselves accordingly.

The powerful antiseptic and disinfecting effects of chlorine have been long known, but until the accidental discovery of chloride of pottassium, a few years ago, the different forms in which it was necessarily administered contained objections commensurate with its advantages. This salt is free from any of the difficulties of former preparations. Not so caustic for local use as chloride of lime, and more effective than the chloride of sodium, it imparts its chlorine readily, and leaves the potass. as mild a caustic and gentle stimulant as could be wished—and whenever it has been applied to fœtid and indolent ulcers, the whole array of yeast and charcoal and other carbonaceous applications have fled before it in confusion. In that modern and most dreaded disease, diphtheria, there appears to me to be no safety in any other remedy. This is a malignant fever with putrid sore throat, the whole lining surface of the fauces and pharynx throwing off a false membrane, which again immediately forms attachments in places, and thus hastens dissolution by a mechanical obstruction. Gentlemen, whose opinions I cannot but respect, still place their trust in the nitras argenti; but its application is very difficult, as it should touch *only* certain places, and its effect uncertain, while two or three free applications of the chloride

of potass. with a sponge, will almost completely remove the local difficulty, and leave you a fair wind and open sea.

Thus I have viewed chemistry only as an adjunct or a chief assistant at our labors; but as we rise in the scale of disease, and find, as we do, our difficulties increase and our skill more at fault, we may be induced to look to this science as the polar star in our distress, and the guiding spirit to carry us through the storm. To include under one general term, the different disorders of this kind, such as albuminuria, tuberculosis, phthisis, &c., I will speak alone of scrofula or general cachexia, and of course will not attempt any minutiæ of detail.

We find an excess of fluid over the solid part of the body, as well as deficiency in fibrin or muscular fibre, and often total want of some important constituents of health, such as phosphorus and sulphur. Or we have excess of hydrogen, with loss of nitrogen. On the use and distribution of these two elements depend, almost solely, our hopes of cure; simply using carbonaceous and oxygenated substances as nourishment, to keep good the supply and preserve the waste, until we can affect a change in the other ingredients. That chemical changes do not take place with the same certainty and regularity of the system, influenced by vitality, as in the alembic and under our observation, I am willing to admit; but that these changes are more or less definitely and correctly effected while circulating in the blood, I think can be as clearly proven. As an instance, and as it constitutes a most important part in our curative process, give, for a few days, cod liver oil with phosphate of lime, and you will detect the dumb-bell crystals of oxalate of lime in the urine. Now, this can only be effected by the change of carbonic acid and carbonic oxide into oxalic acid, which from its stronger affinity sets free the phosphoric acid and unites with the lime. This change is easily produced in some part of the transit through the circulation.

Raw beef, pounded to shreds, has of late received the approval of the London and Continental Hospitals, as food in these cases upon physiological reasons, particularly its ready transformation with little effort of nutrition to the much needed fibrin*—but we also find that the pounding divests it of its cellular substance or cellulose, which is composed of hydrogen and oxygen in the exact proportions of warm water. So the three, carbonic, oxalic and tartaric acids, to which so much

* Mr. Hall certainly does not mean to say that fibrin and muscular fibre are one and the same thing?—Ed.

importance has been attached, contain, two of them none, and the other a very small proportion of hydrogen, which may materially check that ready solvent from carrying the most important solids out of the system. I cannot agree with the one-man power of Dr. Churchill, about the use of hypophosphites, but have no doubt of their most important efficacy when combined with cod liver oil so as to produce the chemical transposition before mentioned.

The chemical indications of cure, therefore, consist in the proper regulations of hydrogen and nitrogen. The first by keeping from the system all such articles of diet as contain the elements of water, and using for medicines, like medical compounds, the few acids I have named. The second by conveying into the system as much as possible of substances rich in nitrogen. Of these the principal are nitric acid, nitrate and cyanide of potass., and the different preparations of ammonia, the chief of which is the muriate—with articles of diet confined to caseine of milk, albumen of egg, and fibrin from beef and mutton.

Fruit, often highly recommended, derives its principal advantage from the long mastication required, causing a greater quantity of atmospheric air to be conveyed to the stomach with the saliva.—*British Am. Jour.—Pacific Med. Jour.*

INTERCOURSE AS AFFECTING UTERINE DISEASES, AND THEIR TREATMENT.

BY AUGUSTUS K. GARDNER, M. D.,
Professor of Clinical Midwifery and Diseases of Women.

This case is one of an ordinary character; some uterine congestion, hypertrophy of the cervix, etc. It is not especially interesting in itself, but in connection with it, the question is raised, *Whether sexual intercourse is or is not to be avoided during the treatment*, or in order to effect a cure? Very frequently during my course of lectures this winter, I have alluded to the fact that various diseases of the female organs were aggravated, and produced by the sexual congress; yet still the subject has been but imperfectly presented. This morning, I will still further elucidate it. Coition is so important a physiological function, and it is so difficult for the young practitioner to learn respecting the ills which arise from its

abuse, either from actual experience of their treatment, or by their study in scientific works which allude but very imperfectly to them, that the theme may well deserve your serious and most studious attention, as it may not only save embarrassment, but also enable you the more easily to recognize and properly treat the many ills which result from overaction in this direction.

The earliest period to which the physician is summoned on account of physical injury happening to the female is immediately after the consummation of the marriage. It is too often the case that, inspired with the idea that every man must in like circumstances perform his part manfully, that the husband does it brutally, and the immediate result is a *laceration of the hymen fourchette* and soft parts, followed by hæmorrhage, sometimes so profuse and uncontrollable as to demand the physician's attention. Usually, this hæmorrhage will be easily arrested by cold water, ice to the vulva, or what is less dangerous, pressure, or a pledget of lint wet in solution of the liquor perchloride or sulphate of iron, more or less diluted, and pressed firmly upon the bleeding part; sometimes a little arterial vessel is ruptured, and it may be necessary to twist it with a torsion forceps. In rarer instances, it is requisite to take up the artery; while generally, holding the tissue pressed firmly between the thumb and fingers for ten or fifteen minutes, will suffice to stop the flow, and by rest and cold applications it will generally be prevented from recommencing.

Sometimes, instead of any laceration, with rupture of any vessel, the parts are much bruised with *ecchymosis and extravasation into the labia majora*, which are consequently much swollen and painful. This condition is best treated by cataplasmata or cold applications over the parts; and a few days only are required, with rest and light diet, if the inflammation be sufficient to demand constitutional treatment, to effect resolution, absorption, and cure. Sometimes, however, this is not the case, and the parts go on to suppuration; an abscess forms, which, if not opened, may spread through the loose cellular tissue and become very large, and greatly destroy the parts. Occasionally, even more serious results, from the supervention of erysipelas, may be effected; and I have known an abscess to be thus formed in the labium, which, after breaking and discharging its contents, a day or two after the ulceration had spread so as to destroy the artery, which bled so profusely in spite of all the efforts of most skillful surgeons to arrest it, as quite to threaten the life of the patient; and it was not until

the abscess was completely laid open, the artery found and tied, by a long, serious, and painful operation, that the hæmorrhage was finally stopped.

The effect of coitus is very frequently seen in the *inflammation of the labio-vaginal gland*, sometimes called Hugier's gland, from its recent discoverer and pathologist. This is one of the commonest forms of acute inflammatory disease of these parts, and is caused not only by coitus, but also by the friction arising in the course of horseback riding, particularly in those unaccustomed to this exercise, and more especially when this excitation is taken during the period of the menstrual congestion. The abortive treatment by cold and astringent applications and leeches, or failing in that, by cataplasmata and the subsequent opening of the abscess, it is not necessary to enlarge upon here.

Vaginitis is also the direct result of excessive coition. This complaint does not materially differ, as I have described to you, from gonorrhœa, unless it be that the latter is more virulent. Indeed, I am very doubtful if gonorrhœa should be considered a specific disease; certainly I have seen cases of vaginitis not different in any respect from gonorrhœa after a connection of unquestionable purity; and it is generally recognized that urethritis in the male is often produced without an impure connection, being the result of uterine leucorrhœa of an acrid character. It is considered by some that the presence of urethritis complicating vaginitis is a sign of the specific character of the complaint; yet this, too, I am convinced, is incorrect, for reasons similar to those just enunciated.

Vaginitis is unquestionably the product of excessive sexual intercourse, and we find it perhaps more frequently in the wives of young, sanguine clergymen, and other men of like continent habits. Unlike the majority of the young men of cities, at least at the present day, their youth is spent in abstinence and imagination. Marriage with them is a rite which justifies the freest and fullest indulgence of their pent-up passions, and the consequence is that they are apt to go to such excess that disease is the result. Moderation in the indulgence of all the appetites is absolutely requisite to avoid disease.

So far as the treatment is concerned, antiphlogistics, rest, and mild tropical astringents, a grain or two of the nitrate of silver to an ounce of water, often repeated, into the vagina, and an unstimulating diet, is all that is requisite. For a local application I have found no injection more efficacious than the following formulæ:

℞.—Zinci Chloridi, ʒ ij.
Aquæ Puræ, ʒ iij. M.

Or, what is about the same,

℞.—(Squibb's) Liquor Zinci Chloridi.
Eight or ten drops of either to a tumbler of water.

Not unless the urethra is implicated is any medicine by the mouth necessary. If so, copaiba, cubebs, potassæ, etc., to act specifically and modify the acridity of the urine, will be found requisite.

Coitus does not, in the normal condition of the uterus, produce disease of the surface of the cervix. It, however, if very frequent, brutal, or in consequence of a too long virile organ, will produce congestion of the organ; then, from its inflamed condition, abrasion of the mucous membrane; from a consequent hyperæmia, hypertrophy, and increased weight, consequent prolapsus, and a whole train of depending symptoms. Where these symptoms exist, if acute disease continues, coitus is inconsistent with cure. When, however, we have chronic hypertrophy of the cervix, endometritis, as in the case now before us, I find that moderately frequent intercourse, entered into without an inordinate sensuality, is beneficial, and so far from being the cause of injury, acts as a direct stimulus to the parts, unloading the congested and turgid glands, and by exciting them to a more profuse secretion, tends to reduce the hyperæmia of the organ.

When, however, there is simple abrasion of the cervix, unaccompanied by hypertrophy and thickening of the parts, or even deeper ulcerative disease, which is very rare, intercourse will generally be found productive of bad results. The glandule lining the neck not participating in the disease, no benefit will accrue from their stimulation and unloading; and very frequently disease may be lighted up in them and spread either as an acute or chronic disease, with that facility of "propagation by neighborhood" so marked in uterine diseases, upon which I have already often enlarged.

Where hæmorrhage follows immediately after coition, with or without pain, there is always some disease present. It does not generally proceed from the just described ulcerations, unless they be of the *fungous variety*, regarding which you have been instructed; but it is usually an evidence of more serious disease, perhaps of a small mucous polypus, or a fibroid, either pediculated or submucous, or of a cancerous or phagædenic ulcer, to which appropriate treatment should be

directed. The hæmorrhage produced by coition from a mucous polypus not larger than a pea, is sometimes exceedingly persistent and debiliating.

Coition in those suffering from endometritis is not necessarily in all instances injurious, but it is apt to be attended by sudden and most intense spasms of pain simulating colic, which comes on not unfrequently in the course of the act. I have one case in my memory where I administered a tablespoonful of the Tinct. Opii without relief, and was obliged to give additional doses of the same narcotic before the violence of this intense spasm was assuaged. Sometimes these pains come on at other periods, especially after the sudden suppression of the menses. These occur very commonly among prostitutes, and are sometimes called *colica scortorum;* and their pathological character not being well understood, they are variously considered to be peritonitis, inflammation of the bowels, sometimes more nearly as metritis; but in almost all these cases are improperly treated by mercurials, from which I have seen many uselessly salivated. The temporary treatment is opiates and hot fomentations, and subsequently leeches, or scarification of the neck, intra-uterine applications of styptic unguents, and generally abstinence from sexual intercourse. The latter is, however, the most difficult prescription to enforce among the class in whom it is so apt to occur, already referred to.

In the pregnant, coition is often to be entirely prohibited, especially in those who have had previous abortions. I have elsewhere stated that for this falling of immature fruit there is always a cause. Often it is owing to ulceration of the os, fissures of the cervix, which are separated by the development of the womb and the absorption of the neck into its substance. Coition starts up a slight bleeding, which is speedily increased, till it becomes so augmented that an abortion is the almost inevitable result. *Obsta principiis* is the rule, and abstinence from coition and the freedom from all uterine irritation is the method of enforcing it.

So, too, in the cases of so-called "irritable uterus," or in those women "who have a tendency to abort at certain periods," but where there is always some certain and appreciable disease, be it as above mentioned, or endometritis, little polypi, spinal irritation, etc., coition is absolutely to be avoided until the usual period for abortion has been assuredly passed, and resumed only with the greatest care. In fact, excessive intercourse will of itself produce abortion, as certainly and for

the same reason as the water douche, by simple uterine irritation. This is, in my opinion, the reason why prostitutes so rarely become mothers. It has been supposed by some to be the mixing of various semen, etc.; but I believe it to be simply and solely because the uterus is not allowed the rest indispensable to form the *nidus* requisite for the ovum, but, constantly irritated, throws it off in the earliest stage. Of course a career of prostitution eventually so disorders the generative apparatus that they are rendered incapable of fulfilling their functions under any auspices.

Finally, to conclude this hasty *résumé* of the hygienic proprieties of coition, after delivery, this act should be renewed with great circumspection, and not until a proper period of time has elapsed. Not unfrequently are the sexual relations re-entered upon with a haste savoring more of bestiality than of creatures endowed with reason and sensibilities. The period cannot be determined by days, but time should elapse sufficient for the entire and complete cessation of all profluvia, for the resolution of the uterus, for the restoration of the vagina and perineum to their normal tone and contractibility; operations which will rarely be completely effected in less than a month, and which usually exceed this period. Indeed, we not unfrequently find the bloody flux continuing double this period. The poetic exaggerations of Michelet, in regard to the "internal, constant wound" with which woman suffer, is in this respect more worthy of consideration than in any other.

I have thus hastily strung together, and presented with some attempt at sequence, views which have been enunciated throughout the course. Their careful consideration will, I am sure, save you from much anxiety in your future career. They should be considered not as a prurient theme for a vicious imagination, but simply and solely as an investigation of great physiological and pathological laws. Such contemplations of any function in God's creation elevate and refine the man, while the morbid idealism by the depraved mind but degrades the thinker, and dishonors the Creator of all things.—*Am. Med. Times.*

ORIGINAL COMMUNICATIONS.

EPILEPSY CAUSED BY THE ASCARIS LUMBRICOIDES.

By M. M. EATON, M.D., of Peoria.

Having had the care of a few cases of Epilepsy in the Chicago City Hospital, under the direction of Prof. Brainard, the last of 1859 and first of 1860, my mind was called to notice the great variety of causes producing, and the multiplicity of remedies found useful in different cases.

It was, therefore, with a degree of reluctance that I undertook the treatment of S. S., who called me Aug. 25th, 1861. He was about 30 years of age, unmarried, and a native of Massachusetts.

His brother and mother stated that he had been subject to fits for nine years; that they commenced mildly, but had steadily increased; that for four years he had had them two or three times a week, often as many times a day; and had only once in that time been free from them so long as three weeks.

They said "he had been doctored by nine different *medical* men, and had used almost all the newspaper remedies for Epilepsy. He had been been a school teacher, and had studied law two years previously to his fits getting so bad; but now he was weak, and did not perform any labor."

He looked careworn and pale, and there was a vacant stare in his eye, unpleasant to look upon; was very irritable; pulse weak.

He said he wanted to eat; but that when he did so, he felt a rising like a ball in his throat, so he could swallow but little; still he felt the gnawing of hunger in his stomach, which he was never able to satisfy.

On inquiry I ascertained that he had been twice subjected to a thorough mercurial treatment; had been bled repeatedly; had used almost all the *Veg.* and *Min.* tonics, as well as a great variety of antispasmodics and antiperiodics; and, so far as I could learn, I thought these remedies had been applied with a skillful hand.

I examined the cranium, but could find no depression, although they told me that he had, when a small boy, received a severe blow from the kick of a horse on his head.

I told them I would think of his case, and requested to be called if he took another fit, that I might see him in one, and be better able to judge of his case.

The next day he was attacked, and I, happening not to be far off, was soon by his side, and after witnessing his appearance and hearing his brother's description of the onset of the attack, I was convinced that my man had the pure, unfeigned Epilepsy, the very *grand mal* of the French.

The paroxysm lasted this time near twenty minutes; he revived, seemed rational, and then fell asleep and slept over an hour. This, I was told, was his usual custom.

On inquiry I found he was troubled with itching of the nose and anus; that his bowels were often hard and painful; and that when a small lad he had been troubled with worms.

After some reflection, I called the next day, and told him and his friends that I thought he was troubled with worms, and would give him some medicine for them. Ordered—

℞—Ol Terabin,
Ol Ricmi aa f℥ ij,
Alcohol f℥ j,
Es Cin gtt. xxx M.

Sig.—Take a large spoonful in milk after eating, three times a day. Ordered him to take but little food.

Aug. 28th—Took the medicine as directed.

Aug. 29th—Ordered and gave Ol. Ricini. ℥ j.

Aug. 30th—Found that the previous day and evening he had had copious discharges of worms, and on examination I

found them to be of the variety called the Ascaris Lumbricoides; the dejections being in amount about one quart, mostly composed of worms, nearly all of which were dead.

Ordered him to take the same medicine as on the 28th; followed the next morning by castor oil.

Sept. 1st—Found he had had a slight fit the day before, and since I saw him had been relieved of over a quart of offensive matter *per anum*, looking like a jelly of worms.

He was then very weak, and affected with strangury. I introduced the catheter and relieved him of that, and ordered him to take ℥ ss of the castor oil. Saw him at 2 P. M.; found his dejections contained but slight traces of worms; ordered beef tea to be given, and teaspoonful of the following solution in water every four hours:

℞—Quinia Sulph. gr. x,
Morph. Sulph. gr. ss,
Alcohol ℥ iv,
Es. Wint. gtt. l x M.

Continued this a week and then gave the Tr. Ferri. Muriat gtt. x three times a day for a week longer. Then gave him the following pills to take three Mondays and Wednesdays for 4 or 5 weeks:

Qui. Sulph.,	gr. xx.	
Strychnia,	gr. ss.	
Ferri Carb.,	gr. xxx.	M. Ft. Pill No. xxx.

Oct. 1st—Saw my patient and learned he had followed my directions, and had had no more fits; that the itching of the nose and anus was gone and that his food went to the right place now and satisfied his hunger; there was no more of that rising in his throat he had complained of before.

Feb. 10th, 1861—When in Chicago, at Rush College, I received a letter from a friend of his, stating he had been afflicted with no more fits, but was then and had been teaching a writing school with good success.

In June last, I learned he was well and had gone to Woodford Co. to work on a farm.

A COUCH FOR A PATIENT WITH A FRACTURED FEMUR.

By ELMER NICHOLS, Medical Student.

As mobility is said to be the most frequent cause of ununited fractures, and having been so unfortunate as to have a fractured femur myself, and knowing the great difficulty in keeping a patient sufficiently quiet with one, I have been induced to contribute my mite to the vast amount that has been written on this subject by giving a description of a couch I invented for the use of patients with a fracture of this kind. It is with a feeling of great responsibility I approach a subject that has engaged the minds of so many eminent surgeons, and one which good teachers treat so carefully, and one, also, which surgeons in general understand none too well, as the deformed limbs we so often meet clearly indicate.

I hope no person will suppose I am so self-elated as to imagine for one moment that I am able to obviate all the difficulties that arise in the treatment of fractured femurs; far from it. If I am able, to some extent, to overcome any one obstacle, I shall feel well compensated for the time I have devoted to the subject. Whether I do this or not depends on the faithfulness in the trial of the following described apparatus:

Make a common lounge frame, as follows: Take two pieces of scantling, the diameters being three and two inches, and six or more feet in length. These unite by *four* cross-pieces of the same diameters and two and a half feet in length. Two of these are placed near the ends, while the other two are placed near the middle of the frame, so that when a person is lying on the lounge the nates will rest over one, while the other will be under the upper portion of the thighs, being about six inches from each other. These cross-pieces, groove in their inner and upper edges for the purpose of holding the

boards that form the bottom of the couch. The peculiar position of these slats or boards is this: the ones on which the lower extremities rest are to be even with the top of the frame, extending from the cross-piece at the foot to the next one in the middle, while the others extend from the other middle cross-piece to the one at the head, being situated some lower than the edge of the frame, so as to leave room for a mattrass, and should have a joint near the middle, by which the head and shoulders may be raised or lowered to suit the patient. These need two supports under the middle of these boards—the one at the foot to keep the boards from sagging and producing a curve in the fractured bone, and the one at the head to support the hinge-joint. There are two light cross pieces mortised into the longitudinal pieces. Between the two middle cross-pieces are placed two short pieces of boards, filling up the space between them, except an aperture on the medium line through which are passed the fœces. Suspended beneath this is a board on which is placed a vessel at the time the bowels are evacuated.

A firm mattrass is placed over the upper portion of this frame, and secured throughout to the boards by means of strings passing through it. This mattrass must be firm and unyielding, giving way only enough to fill up unevenness of the body, and when completely depressed be on a level with the top of the frame and boards on which the fractured limb rests. There should be an excavation in the cross-piece on which the nates rest, and this should be well padded by the mattrass, so as not to press too hard on them. The whole couch, except the orifice through which the fœces pass, is covered with a quilt and sheet, or anything similar to keep the patient warm, and thick enough to be somewhat soft; but not depressable to any great extent.

The longitudinal pieces may extend beyond the frame at each end and be converted into handles, making a sort of hand-barrow on which the patient may be moved. Thus when a patient receives the injury away from home, as is

often the case, he can easily be placed on the couch, taken into a sled or large wagon, and by two persons, one at the head and the other at the feet, steadying it in their hands over rough roads, he may be conveyed home, even a long distance, though it may be, without material injury. When where the patient wishes to remain, the frame can rest on two wooden horses or benches.

The Treatment with this Apparatus.—This will be as I should treat it myself without reference to any particular rules laid down in books on fractured femurs, though I believe it is not contrary to the general plan.

Having placed the patient on the couch, you put a long, straight splint beneath the limb, padding it sufficiently to fill up inequalities of the limb.

Having placed the fractured ends of bone in apposition, you apply the eighteen-tailed bandage. On the outer side of the limb place the long splint, extending from the hip to below the foot, and on the rest of the thigh apply short, thin, but firm splints, extending from the groin to the knee-joint. These are held in position by single, strong bands, tied snugly around the whole. Padding, of course, is put beneath the splints so as to obtain pressure as the thigh requires. Now, if the fracture is oblique it is necessary to apply extension to keep the limb in proper length. This may be accomplished in two ways: First, by the usual means, with the long splint, with a shoe adjusted by means of a screw to draw it out or let it back as you wish, while the upper end of the splint is held in place by means of the spiral band, filled with nt or cotton, passing round the groin and through the holes n the splint. This, probably, is as good as any. There is ut one objection, and that is the shoe, or the mode in which ne straps are often applied, produces excoriation if you use ne desired force for extension. This, however, can be obvited by using a legging instead of a shoe, which is to pass up ver the calf of the leg. This is to be tightly wound with a andage, and then saturated with rosin dissolved in alcohol.

The legging and bandage should be previously rubbed with powdered rosin. But better than this, perhaps, is the use of long, wide straps of adhesive plaster, extending all the way up the leg and over the knee-joint.

The other mode is perhaps the most readily procured, especially on the couch. The spiral band passes around the groin and extends up opposite the waist, is made fast to the side of the couch. A shoe, with legging or two straps extending up the leg, (as described above,) with two eyes in the sole of it, through which passes two cords back to a hook or peg in the foot-piece. The object of the *two* eyes (one near the head and the other near the toe) is to keep the foot at right angles with the leg. The cords running back from these eyes are tied as snugly as possible to the hook or peg in the foot-piece, and now, by placing a stick between the cords and twisting all necessary extension will be obtained. To prevent the foot from turning from side to side, a cord is tied round the toe of the shoe and fastened to each side of the couch.

To prevent the patient moving his hips, and thus tending to move the fractured bone, a broad belt passes over them and is buckled on each side to straps tacked on the frame. Care should be had not to press the pelvic viscera with the belt.

What I Claim in This as Superior to Other Dressings.— I understand they have beds constructed in large hospitals for patients with fractured limbs, having a trap-door through which the fæces can pass. If the bed is hard and firm, I conceive this to be as good, and perhaps better, than the couch above described; but it is not available to the common practicing surgeon, while the couch may be constructed after the fracture has been dressed, and then the patient placed apon it as easily as he could be raised for the purpose of evacuating the bowels; and it will *pay* to have it prepared for *only one* case of fractured femur, *i. e.*, if a *good limb* is better than a poor, crooked excuse for one.

There have been many means devised for raising the patient

from the bed, when necessary, by means of rollers, levers, &c. But I dislike the idea of moving the patient at all, let him be ever so careful to obey every injunction of the surgeon, and besides have the most careful attendants, (which, be assured, you will hardly ever find,) there will be continually occurring sundry jars and twistings that will cause more or less gliding of the fractured ends on each other, thus retarding union. The bed on which the patient must of a necessity be placed is usually yielding, allowing of depression, thus allowing the patient to glide about, moving the limb, and thus requiring an excessively tight dressing to prevent curvature to a *great extent.* On the couch the patient has for his limb and body a plane, unyielding surface, and is kept in *one place all the time*, so that it requires but a very little pressure in the dressing to keep the fractured ends of bone in perfect apposition; and this I deem to be an important point to be gained, as I believe a bone would unite quicker if the circulation was not impeded at all by any dressing, if the limb could be kept *perfectly quiet.*

Since I commenced this article I have been shown a sort of barrow, made by tacking a piece of canvass to a wooden frame, on which the patient lies, and is raised on and off the bed when necessary. This has the objections, first, of the sagging of the canvass, causing movement and curvature; second, *moving the patient;* and third, requiring two attendants, who are liable to have accidents occur, even if they are the most careful. In mine, one attendant is all that is required at any time after the limb is once dressed.

The arrangement for raising the patient's head and shoulders is one to be desired, as it is one the patient will wish for, and wishing, *will have it*, spite of all injunctions to the contrary. If there is no means provided he will resort to pillows, chairs, &c., which will cause more or less jarring and movement of the body, and through that the same to the fractured one, in placing them in position.

Now, when we look at the great number of suits brought

against surgeons for maltreatment of this fracture, I feel sure that this article will not simply be glanced at unheeded; but that the apparatus herein described will be thoroughly tested, and its merits (if it has any) be made known, as there is no patent on it and is free to all who will accept it. When you have a case of fractured femur, and are puzzled to know what to do, refer your mind to the couch prepared by one who has had this unfortunate fracture himself.

Podophylline.—I have been in almost daily practice of using it for several years, and have made up my mind respecting its potent qualities. It undoubtedly does act as a stimulant to the liver, which, under its influence, pours out bile profusely. This action is not temporary, but is persistent for several days after its administration. It is, therefore, an admirable adjuvant to other cathartics which are apt to be followed by constipation, requiring a subsequent laxative to again move the bowels three or four days after their exhibition. Given alone, it is apt to gripe, and it should therefore be administered with some laxative, as jalap, or rhubarb and some carminative. Care should be taken in its administration to children, for I have known it to be so excessive in its action as to produce something approaching collapse. Another peculiarity in its action is, that it is very persistent, continuing to operate for several days upon the intestinal canal; being in this respect the opposite of most medicines, which are apt to be followed by a greater or less constipation proportionate to the catharsis.—*Prof. Gardner.*

EDITORIAL.

"*Put not your trust in*" *Local Editors.*—A medical contemporary is exceedingly exercised because, in a recent number, we quoted certain paragraphs from the columns of a prominent daily newspaper published in this city. We confess the soft impeachment and admit we credited its statements, largely because the acting editor of our medical contemporary is immediately identified with said daily newspaper, and therefore its utterances, in strict accordance with the "code," ought to be received as true.

We rejoice with our amiable contemporary in ascertaining that our public schools are not to be curtailed, or in anywise suffer in consequence of the delinquencies of its patron saint, for it appears said patron saint, fortunately, had nothing to do with the school moneys. It sufficiently appears that the individual from whom they derive the patronymic of their pet institution, only had to do with the *Sewerage* fund, and incidentally with the model medical college baptized with the promises he so liberally issued.

It leaks out that the model great medical reform school was endowed with a three year's lease of the cockloft of a warehouse and hide and skin depot, provided the Faculty would put it in repair and good order, and were moreover incited to the work of medical reform by the express or implied assurance that their patron saint would erect them a new building wherein to inculcate medical reform, at the expiration of the three years' life and good behaviour, always provided it could be done with safety to the public funds, and without injury to the private resources of the patron saint.

There seems to be some strange contradiction in all this business. Our contemporary is Lind, and not Lind, according as the wind blows Northerly or Southerly. As secular editor,

our contemporary attacks Mr. Lind; as medical editor, he defends Mr. Lind.

As secular editor, he insists that the patron saint has curtailed the fair proportions of the public schools; as medical editor, he resents the imputation with exceeding wrath. We are in doubt, therefore, and we anxiously inquire, is there any such thing as the Lind University, with academical and theological, and (grand climacteric) medical department, — "or any other man?"

Which way looks our contemporary? One of its editors abhors all that is fermented or distilled, and lifts up his voice in the highways and byways against it—the other is accounted such an acute judge of the virtues thereof, that the State Agricultural Society appoints him one of its judges of the excellence of ales, and silver pitchers incline to Sands, or Lill, or Dickinson, according to his refined taste. We despair of ascertaining the position.

But one thing has emerged from this contest—the Lind Medical College has no endowment, save promises now known to be impossible of fruition. Its assumed reformed methods of instruction have been repudiated by the whole body of the profession. It simply aims to build up a new school by misrepresentation of its own resources, and incessant calumny of the old. We leave it with its patron saint in the courts—the one to general medical opinion, the other the provided tribunals of justice under the Constitution and Statute Laws. We shall soon find which is the true Dromio.

Books and Pamphlets Received.—From Blanchard & Lea, through W. B. Keen, 148 Lake street, Chicago:

Bumstead on Venereal,

Barwell on Diseases of the Joints,

Morland on Uræmia.

Timely and valuable treatises, which will respectively receive early attention.

Transactions of the State Medical Society of Indiana; p. p. 56.

Pott's Disease ; or Angular Curvature of the Spine. Cases successfully treated. By. J. A. Wood, M. D., Boston, Mass. Dr. Wood reports several cases of cure of this serious affection, "effected with the curvature nearly, if not completely removed, by appropriate mechanical appliances principally, to the entire exclusion of setons, issues, or any other counter irritant, or even restricting the patient to the recumbent posi tion. Without expressing any opinion further, we may observe that Dr. W. refers, by permission, to several of the most prominent surgeons in Boston and New York city, and can be consulted at his office, 31 Cooper Institute, N. Y. city. The apparatus employed has been described in one or more of the medical journals.

Military Map and Gazetteer.—Our military surgeons, as well as civilians, will find "Lloyd's Military Map and Gazetteer of the Southern Country" very convenient for a reference during the progress of the Grand Army toward the Gulf of Mexico. We acknowledge the receipt per mail of a specimen copy, upon which we hope to trace the daily progress of our brethren in the brigade and regimental service.

Professional Patriotism.—A private letter from one of the number, informs us that there are between 200 and 300 applicants for the position of Surgeon to the Tenth Regiment of Michigan Volunteers. Is there any other profession which can show proportionate zeal for serving the country? It is fervently hoped that all may not be forced to go.

Rush Medical College.—As noted in the last number of the JOURNAL, there will be no interruption in the regular course of lectures the ensuing session, in consequence of the appointment of Profs. Blaney and Freer as Brigade Surgeons. These gentlemen will give complete courses as usual.

Prof. Blaney, having been selected as Medical Purveyor to the Illinois forces and Supervisor of the General Hospital

department, is permanently stationed in this city. A letter from Prof. Freer, now in Washington, positively assures us that he will return and give his course, unabridged in any part.

The position of Demonstrator of Anatomy will, during the temporary absence of Dr. Powell, be supplied by the Prof. of Anatomy, assisted by I. P. Lynn, M. D., a well known and highly esteemed almunus of the College resident in this city.

The only modification of the usual curriculum will be the devotion of appropriate attention to Military Surgery and Practice, as rendered imperative by the exigencies of the times. It will be seen that, for carrying out this object, the College presents very considerable facilities; perhaps it is warrantable to assume, unequalled elsewhere.

Oxide of Zinc.—Dr. S. Waterman, in the *Medical Times*, asserts that Oxide of Zinc exerts a powerful sedative or soothing influence over the brain and the ganglionic nerves. It is mild in operation and free from the after effect of opium and other narcotics. It may thus be used in cases where other narcotics are contraindicated. "Its ability to soothe vascular excitement dependent on cerebral and nervous irritation cannot well be doubted; whilst it possesses equal power to allay and calm the irritation of the brain and ganglionic nerves, unaccompanied by inflammatory action of those tissues." He considers it even sometimes useful to a limited extent in inflammation of the brain and meninges. He concludes that both rationally and by actual trial and observation, it is beneficial in *delirium tremens*, when narcotics fail; given in two or three gr. doses every two hours, alone or in combination, as indicated. In *eclampsia infantilis*, after the fits have been broken by free use of chloroform; given in grain doses alone, or with cal. digit, or squill, &c. In *eclampsia*, happening during pregnancy, labor or menstrual irregularities; given in two or three gr. doses, every two hours. It is not as efficient in plethoric cases or uræmic intoxication. In *hysteric convul-*

sions. In *exanthematic diseases*, where the eruption accompanied by cerebral irritation or even convulsions. In *epilepsy* and *chorea.* In *asthmatic difficulties* and *whooping cough.* In the *night sweats* of phthisis. In *worms* and *chronic dysentery*, and lastly in some of the more obstinate cases of *intermittent.*

Dr. W. calls for further investigations of its properties.

Gargle in Diphtheria.—Common salt is strongly recommended as a gargle in diphtheria.

Pitting in Small Pox.—Dr. Bell commends the wearing upon the face of masses of cotton wool saturated with *Linimentum Aquæ Calcis*, the whole covered with a handkerchief, leaving apertures for the eyes, nose and mouth. The dressing should be kept sedulously applied from the commencement of the eruption until convalescence is fully established.

Antaphrodisiac.—Bromide of Potassium is again coming into favor as an antaphrodisiac. Pfeiffer, of Paris, confirms the opinion that it is a sedative both to the muscular and secreting portions of the generative apparatus. It appears to control both erections and discharges, and relieves neuralgia of the neck of the bladder and testicle. It is exhibited in moderate but repeated doses, every three or six hours.

Rupture of the Abdominal Parietes.—Edward Batwell, M. D., of Detroit, reports a case wherein the patient, a woman of 67, of rather intemperate habits, whilst sitting in her chair during a violent fit of coughing, had a complete rupture of the abdominal parietes "not alone through the muscular fibre of the recti muscles and linea alba, *but through the integument itself*, permitting a large quantity of omentum and small intestines to escape from their natural cavity, which were, with considerable difficulty, returned, owing to the strong muscular contraction and to the expression of pain from the patient."

"The rupture had occurred about an inch and a-half below the umbilicus, was about four inches long externally and about two inches in extent through the peritoneum. The recti muscles were severed through their entire breadth, and there was no appearance of ulceration or previous abrasion of surface, to account for the accident." The patient lived twenty-five days after receipt of the injury, the wound showing little or no tendency to unite. The case is certainly unique, but its credibility is most unquestionable.

Chloroform in Tetanus.—A correspondent (Dr. Wagenseller) of "Reporter," chronicling a case of idiopathic tetanus, unsuccessfully treated by chloroform, nevertheless concludes:

"1st. Chloroform does not always depress an already enfeebled circulation; although in this patient it acted the part of a powerful *nervous sedative*, it fulfilled at the same time the part of an *arterial stimulant.* This effect was *invariable;* these two important indications were met by it at every occasion of its administration.

"2d. Chloroform fully and freely administered will relax partially and temporarily the most persistent tetanic spasm, when opium and other remedies (which were tried in large doses) will produce no effect whatever."

He confidently looks to more recoveries from the use of this agent, than from any other now in use with the profession.

Nervous System.—In a recent lecture on the Spinal Cord, Bernard urges that the functions of the sympathetic nerve and cerebro spinal system so long viewed as entirely different in their nature—organic life being the sphere of activity of the first and animal life of the second—are by no means separable by absolute distinction. That the terms "sympathetic nerve" and "cerebro-spinal system" ought, with many others of like nature, to be expunged. There is no essential physiological distinction. The ganglia are not independent sources of nervous action. The results of experiments all

:end to prove that all the branches of the sympathetic are derived from various regions of the spinal cord. The difference in the mode of action and conduct of the several nerves s not sufficient to establish a real diversity of nature.

He concludes: "The nervous system, therefore, contains only two great divisions—sensitive and motor nerves; it matters little whether the subject is conscious of their action or not, their properties in both cases being identically the same."

We have not space for further details from this interesting paper, (translated by Dr. L. Elsberg,) but must express gratification that this acute observer is gradually receiving the idea of the beautiful simplicity of the mechanism of nervous action. One step further is demanded, viz: the nervous system contains *no* divisions. The conduct of a nervous fibre, either as a sensitory or motory, depends *not on the fibre itself, but upon the structure which it reaches at its extremity*. Nerve fibre, wherever it is distributed, is simply a conductor determining changes at one extremity which have been originated, n its course, or, at the other extremity. The ultimate effect nay be sensory, motory, &c., or, in one word which includes ll *secretory*, according to the structure of the tissue or organ eached. The essential effect is a modification of the nutrition of the part reached, and hence necessarily a modification of its functional actions.

Didn't See the Point.—Some wit, chagrined at the failure of the distinguished authoress, Mrs. Ellis, to comprehend what ne supposed to be a good perpetration, indignantly exclaimed hat she could not see a joke if it was fired out of a cannon. What was his dismay when she with great astonishment nquired, "How *could* a joke be fired out of a cannon?"

Something like this occurred at Washington the other day, when the qualifications of a candidate for Brigade Surgeon were being looked over. A venerable member of the Board asked whether the candidate had *operated* much. Certainly, was the grave response,—he has operated extensively—*in real*

estate. The venerable examiner, with a puzzled air, remarked that he could not see *the analogy.* The candidate, however, was duly commissioned.

Renunciation of Homœopathy.—Dr. J. C. Peters, of N. Y. city, whilom distinguished as an author, editor and practitioner of the homœopathic school, is out in the *Am. Med. Times* with a letter renouncing and denouncing that system of delusion and imposture. We understand that several other prominent homœopathists of that city have followed his example. This is honest and honorable. But up here in the Northwest things are done differently. After very close observation and frequent conversation with homœopathists, we have been unable to find one who adheres to his assumed system. We have detected, time and again, their use of the usual doses and methods of regular practitioners. Many of them, indeed, make a merit of their readiness in "severe cases" to have recourse to "old school measures." The gross inconsistency, not to say dishonesty, of this course is apparent. But what is the use of arguing the matter? A certain proportion of the populace will have a pet delusion or imposture of some sort, and, perhaps, in its way, this absurdity of homœopathy is as harmless to them as any.

Corps of Medical Cadets.—We have received several letters of inquiry as to the proposed Corps of Medical Cadets. As we possess no particular information upon the subject beyond what is contained in the following circular from the Surgeon-General U. S. A., we insert it in full:

"SURGEON-GENERAL'S OFFICE, August 6, 1861.

"The following Act of Congress in relation to the Corps of Medical Cadets is published for the information of all concerned:

"'SEC. 7. *And be it further enacted*, That there be added to the Medical Staff of the Army a Corps of Medical Cadets, whose duty it shall be to act as dressers in the general hospitals and as ambulance attendants in the field, under the direc-

tion and control of the medical officers alone. They shall have the same rank and pay as the military Cadets at West Point. Their number shall be regulated by the exigencies of service, at no time to exceed fifty. It shall be composed of young men of liberal education, students of medicine, between the ages of eighteen and twenty-three, who have been reading medicine for two years and have attended at least one course of lectures in a medical college. They shall enlist for one year, and be subject to the rules and articles of war. On the fifteenth day of the last month of their service, the near approach of their discharge shall be reported to the Surgeon-General, in order, if desired, that they may be relieved by another detail of applicants.'

"Application must be made to the Surgeon-General for admission into the corps, in conformity with the above act, stating the date and place of birth, place of residence, period of medical studies, and enclosing the certificate of the dean of the college (or, when not attainable, other satisfactory evidence of the fact), that the applicant had attended one full course in a medical college. Those applications must also be accompanied with testimonials of the good moral character and sound physical condition of the candidate.

"When an applicant is favorably considered, the candidate will receive a letter authorizing him to appear before an Army Board of Medical Examiners, who will make a special report in such case. From among those approved by the Board the Surgeon-General will select such a number as the service may require.

"As the services of this class of medical and surgical assistants are at once required, applications (to be successful) should be promptly made to the Surgeon-General, who will direct the candidate to appear before one of the Army Medical Boards now in session in Washington and the city of New York.

"R. C. Wood, Acting Surg.-Gen."

Perils of the Service to the Medical Staff.—Whilst upon the field, Surgeons, like other non-combatants, are exposed to the chances of an occasional stray bullet, shot or shell. In the heat of conflict, but especially during a rout, they are in more or less danger from the ignorant brutality of a pursuing soldiery; but this latter is a rare and exceptional case. The highly wrought stories of Confederate butcheries of surgeons

and wounded soldiers, repeated after the Bull Run affair, have, we are happy to believe, been almost wholly disproved.

Dr. Alfred Powell, Surgeon of the Second New York Regiment, was unquestionably killed while engaged in succor of the wounded, but there appears no evidence that his professional character was known, or that the catastrophe was more than one of the incidental brutalities of even the best conducted *christian* and *humane* wars. The surgeons who were taken prisoners generally concur in the statement of the kind treatment of the enemy, towards themselves, as well as the wounded under their care. The principal trouble seems to be the danger that, in the absence of the usual system of exchange of military prisoners, they are in danger of being retained in the enemy's custody, or placed on a parole, which will debar them for further profiting by their successful trial before the Examining Board.

But if surgeons, as in some instances reported, so far forgot their non-combatant character as to seize sword or musket and act the fighting part, of course they must take the soldier's chances. So even the wounded, if, through motives of either revenge or patriotism, they still continue, as in many cases related, to load and fire upon the enemy, they must not expect the ordinary immunity of the disabled soldier, but to render themselves liable to bayonet or ball. For the honor of the Anglo-Saxon race, we shall continue to believe that the killing of surgeons or wounded men, thus far reported, has at least this palliation. Meanwhile we shall continue to believe that the position of Surgeon to a Regiment, even if not particularly lucrative, or especially prolific of honor or reputation, at all events is not so remarkably dangerous as to frighten from it men of ordinary strength of nerve.

The Rank.—The vexed question is apparently settled by official information from the Adjutant General's office. The Regimental Surgeon of the Volunteer force, ranks and draws pay as a Major of Cavalry; the Assistant, as Captain of

Cavalry. This is better than feared; but now let the Government vouchsafe, brevets, promotion and the usual honorary mention of those who distinguish themselves in this service, and the Surgeons of the Grand Army will have little of which to complain. The importance of the department demands at least this.

Iron Pyrites.—Some correspondent, whose letter unfortunately has been mislaid, encloses a fragment of iron pyrites which a hopeful friend has handed him. Gold occurs in connection with this pyrites in gold bearing regions, but not elsewhere. Tons of this pyrites are worthless. The gold, if present at all, is in homœopathic attenuation, anything but pleasant to the miner, however much a similar attenuation may titillate the palate of the devout believer in infinitesimals. Homœopathy is Small in this city, but in value about equivalent to the gold in our friend's pyrites.

A few Words about Typhoid Fever.—All the phenomena of Typhoid fever tend to convince us that it is essentially dependent upon a *materies morbi* in the blood. The results of treatment illustrate it, and we take for granted that it is as well established as possible without its being absolutely sequestered and demonstrated by the chemist.

A large amount of this *materies* unattended by efforts at elimination, involves the phenomena of Cerebral Typhus. A large amount and excessive effort at elimination induces the severer forms of Typhoid (Abdominal Typhus); a lesser amount and active excretion presents the more common mild forms.

It is quite unfortunate that under the general term, "inflammation," are grouped a great variety of very different conditions. The term, in fact, is as indefinite as that of "fever." The intestinal affection in this disease is too frequently considered and treated as an imflammation, whereas it is no more nearly allied to common inflammation, than the

small pox pustule and its surroundings are to the *tumor*, *rubor*, *calor* and *dolor* succeeding a healthy wound.

We are invited in practice to imitate the mode adopted by the *vis medicatrix naturæ* in endeavoring to eradicate disease. A better plan is to watch the tendency to death, and provide against it by such measures as scientific experience may suggest.

The tendency to death in the greatest portion of cases which have fallen under our notice has been by ulceration, hæmorrhage or perforation in the ileo-cœcal region. In every case examined, *post mortem*, the Peyer's patches have been involved, as sufficiently described in the books.

None have recovered after perforation—three cases. Three-fourths have recovered after hæmorrhage—eight cases. With these exceptions the disease has proved very amenable to treatment, and the results satisfactory.

We must be permitted to say that the so-called complications, gastritis, pneumonitis, meningitis, &c., have been infrequent under our observation, though frequently our professional friends have insisted that certain symptoms proved their existence. If these various organs were inflamed, the inflammation was of such a character as to merit quite a different name and treatment. In our view, too much ammunition has been wasted on "complications," especially by the book-writers. They might as well devote their batteries to the gouty toe, and neglect the gouty carcase.

Nothing is more true than the statement that in Typhoid fever, while there is life the case is not hopeless; and while there is any disease, there is danger. In the first case of perforation of the bowel in our practice, the patient had so far convalesced as to be up and about, and there was absolutely no external or rational indication of remaining disease; and yet, while at stool, the pains of perforation came on and he sunk, and was dead in six hours. On the other hand, we have had patients apparently moribund recover, in very spite of the prognosis.

The diagnosis is easier made than given. We rely upon the group of symptoms in the outset, and the roseolar eruption later as pathognomonic.

I. Languor, lassitude, mental hebetude, diarrhœa, epistaxis, continued fever, slight bronchial cough.

II. Roseolar Eruption—*always* present if carefully looked for, tympanites, sudamina, deafness, dryness and redness of the tongue, gurgling in the ileo-cœcal region (often with tenderness) upon pressure, (French method), nervous symptoms, delirium, subsultus, &c.

III. Gradual convalescence. Or, deepening of previous symptoms to constant delirium, coma, involuntary discharges, retention of the urine, prostration, &c., &c.

Average duration of treatment, nineteen days. A few cases will spin out to four, or even six weeks.

Treatment.—No emetics. No blood-letting. No active cathartics, except in the cerebral form with torpid bowels—*rare*.

First importance—quiet sleep at night. For this purpose a single full dose of Pulv. Ipecac. Comp. is preferred. The cases are very few when a large dose of this will not secure sleep, provided the patient does not fancy he has an idiosyncrasy with reference to opiates. (*Mem.*—The less a patient thinks he knows about medicine, the more likely he is to be benefited.) Rarely some other narcotic may prove useful.

Second point—that the bowels move once a day, and no oftener. To check the diarrhœa, Pulv. Opii and Acet. Plumbi in moderate doses, p. r. n. To move the bowels, Ol. Ricini vel Olivæ with twenty or thirty drops of Sp. Terebinth. Practically, in this disease, all saline cathartics are objectionable.

Third item—control febrile action by external sponging, cool air, free ventilation, cooling diuretics and diaphoretics. The diuretics are particularly preferred. Especially Acetas Potassæ: 1st, because it is practically useful by experience; 2d, because it eliminates a larger amount of solid matter

through the urine than any other known article. For instance this:

R. Acet. Potassæ dr. ij—oz. ss.: Sp. Nitri. Dul. oz. ss.:
Pot. Tart. Antim. gr. ij.: Aq. oz. iij. ss.
M. Two teaspoonfulls every three hours.

If it inclines to purge, add Tr. Opi. Camph. q. s. or Tr. Opi. The hobby of the hour, Tr. Verat. Virid., may be substituted for the Pot. Tart. Antim., either in or out of the mixture, for its known effects. In our opinion, it controls symptoms well, but shortens no disease. It is hence infinitely inferior to the Antimonial. It is more liable to leave a red tongue and augmented intestinal disorder. It is neither restorative nor depurative, except in dangerous doses. In perhaps the majority of instances we rely upon the simple solution of the Acet. Potassæ, without adjuvants. Later in the disease Liq. Ammon Acet. is substituted occasionally. In this connection, we beg leave especially to recommend free and constant use of the Acet. Potassæ. No other diuretic or diaphoretic has anything like its power as a febrifuge and eliminating agent in continued fever. We cannot but believe, from long and close observation of its effects, that it relieves the system of that material which, in tending to excretion by the ileocœcal region, so prominently deranges and destroys the glands and other structures of that part.

It lessens thirst and thus obviates the necessity so often felt of deluging the stomach and bowels with diluents, eminently nastly decoctions and shadowy soups. Hence diarrhœa lessens, and tympanites with the accompanying train of nervous symptoms abates. There will be less need of Valerian, and Assafœtida, with its after effect of horrible odors.

Fourth proposition—When the red tongue, especially if dry and shining, appears, our experience adds nothing to the instructions of Prof. Wood as to the employment of the Ol. Terebinth, except a most cordial and hearty endorsement. It is *the* treatment—and the *ne plus ultra* of satisfactory treatment. In a very few cases, it would not be

borne, and these cases have responded readily to moderate doses of mercurials—not carried to salivation. With this latter exception, we have found no use for mercurials in typhoid fever.

Fifth—As "a looker-on in Vernon" we have seen alcoholic stimulants used freely in the Typhoid fever, but must enter protest against them as a mode applicable to rustic constitutions. The cachectic crew that throng the fever wards of metropolitan hospitals furnish no standard by which country practice is to be guided—especially as the results here would speedily drive the practitioner from his "field of labor." Let it be remembered, the object of administration of the preparations of the alcohol is to arouse and invigorate the digestive and assimilative processes—not to relieve the abnormal feelings of weakness, or muscular and mental hebetude.

In the vast proportion of cases they are unnecessary and as hurtful as they are to the healthy man. Their abstraction, when once commenced with, produces proportionately the same effects as upon the habitual tippler. Considering the terrible consequences attendant upon the use of alcohol, it is the duty of medical men to avoid its prescription except in cases clearly and distinctly demanding it. It is of comparatively trivial value in the disorders now under consideration, and liable to the production of serious mischief. It will allay the nervous symptoms, it is true, but is not unlikely to aggravate the intestinal ulceration. At the very best, it is noticeable that those who rely upon it, have very sick patients and a multiplicity of "complications."

Patients rarely die of simple debility; the reason of death is deeper, and we have no evidence, theoretical or practical, that alcohol searches it out. A much more useful stimulant is furnished in Carbonate of Ammonia. Aristol. Serpent. is also very frequently quite serviceable. The stimulus they afford is more akin to the natural forces, and beyond this they do not gorge the blood with carbon. But in the—

Sixth note—Appropriate diet is beyond all other means the

real sustaining power. Concentrated nutriment is easier digested than attenuated dilutions. Dish-water slops will rumble along the canal and so outward, in one perpetual flood. Nourishment should be communicated so as not to require mastication, but should be retained in the mouth long enough to become fully insalivated. This simple thing alone will moisten many dry tongues. While there is much activity of febrile action, it is better to eat nothing; then farinaceous boluses, (not slops); then strong essence of beef,. (not "beef tea"); then hashed beef; then such meat as the appetite craves and the teeth are willing to thoroughly masticate, commingled with bread, &c., up to ordinary diet.

There is no objection to some condiments, as black pepper and salt. A table-spoonful of essence of beef has more supporting power than the same quantity of brandy; but dilute it with slops, and it *will* go with the "chocolate."

When the blood begins to show signs of impoverishment, not only must nitrogenized animal food be freely administered, but there will be a saving of alcohol and vital power by mingling a generous proportion of animal fat. It is fearful to think of the number who have died of inanition, whilst some old crone, or old crone's adviser, has been assiduously skimming off the scattered globules of oil from the boiled shadows of the valetudinary *soupe maigre*. Sick diet! *Lucus a non lucendo!*

Seventh particular—The drinks should never go beyond what will be speedily absorbed from the mouth, throat and stomach. The patient will rarely suffer from thirst if treated freely with the salt above indicated.

Eighth; last, but not least—Free ventilation is all important. Poor people recover in the country better than rich ones; because the healthful air and salutiferous light are not excluded. No place outside of a hospital (the charnel house of typhoid fever) is worse for the patients than the close, heavily curtained, heavily carpeted, and cumbrously furnished rooms of the affluent. No patients are so subject to pulmo

nary complications as those who are carefully guarded from "taking cold." A feather bed is herein an abomination. The entire paraphernalia of the couch should be changed daily. One day for service and one day out of doors. The evacuations are pestilential—out of doors with them *instanter*. The emanations are pestiferous—dilute them with outer air and sunlight. Have nothing in the room more than twenty-four hours in succession which is capable of absorbing effluvia.

Do not keep out the blessed sunlight or pure air. Put on a cheerful visage, even if playing Sir Oracle. The awakening and sustaining pleasant emotions in the patient's mind, is worth more than a gallon of "Huxham."

A Practical Treatise on Military Surgery.—By Frank H. Hamilton, M. D., New York. Baillière Brothers, 1861, pp. 234, 8vo.

This is the third work on military surgery whose appearance we have had occasion to chronicle since the commencement of the present war.*

Although this work of Prof. Hamilton takes a wider range than the others, being a "treatise," while those of Drs. Tripler and Blackman, and that of Dr. Gross, have only the modest title of hand-book, yet they all embrace essentially the same field and aim to supply the want supposed to be felt by surgeons called suddenly from civil practice to the duties of the field or military hospital. As such, they are all calculated to be useful. None of them assume to discuss the doubtful questions of surgical practice from an original point of view or in the light of any new facts.

It is indeed obvious that we most look to the end rather than to the beginning of any war for those works which can add something of value to our surgical knowledge, and, therefore, we have not heretofore, nor do we propose now to enter into any discussion of doubtful questions. The present work of

* For notice of the works of Drs. Tripler and Blackman, and that of Dr. Gross see page 308 of JOURNAL.

Prof. Hamilton embraces many subjects of interest as may be gathered from the table of "contents" subjoined:

Chap. I—Introduction; II—Examination of Recruits; III—General Hygiene of Troops; IV—Bivouac, Accommodation of Troops in Tents, Barracks, Billets, Huts, etc.; V—Hospitals; VI—Preparations for the Field; VII—Hygienic Management of Troops upon the March; VIII—Conveyance of Sick and Wounded Soldiers; IX—Gunshot Wounds; X—Amputations; XI—On the Employment of Anæsthetics in Amputations and other Surgical Operations, after Gunshot Injuries; XII—Hospital Gangrene; XIII—Dysentery; XIV—Scorbutus, or Scurvy; Appendix.

Of all these, we only feel called upon to caution all surgeons against accepting without reserve the views enunciated in regard to the use of anæsthetics, which the author regards as injurious in operations for severe wounds, and quotes Drs. Z. Pitcher and J. B. Porter, U. S. A., and Messrs. Velpeau, Alcock and Jobert in support of his views. It is regarded as tending to produce gangrene and prevent union by the first intention.

The objections urged against chloroform we regard as not so much against its use as its abuse, for we have often witnessed in some of the large hospitals of Europe and this country, its employment to an extent apparently unnecessary, if not dangerous. Our author prefers sul ether as an anæsthetic. After commencing with ether, going to chloroform and resorting to a mixture of the two, we have settled down upon the use of chloroform and in its constant employment in private and hospital practice for the last eight years, not a single case has occurred in which any unfavorable effect has resulted from its use.

As this is a point of great importance, and the opinions and experience of Prof. Hamilton and others *seem* to conflict with our own, the following points concerning its use are presented as rendering it entirely safe:

1. Let the patient be lying down.

2. Do not give it where there is disease of the heart or brain, or when the respiration is imperfect.

3. Administer it slowly on a coarse napkin, and let the air of the room be fresh and not charged with the vapor.

4. It should not be given when the stomach is full, but if the patient be depressed, stimulants may be administered before hand.

5. Its effects should be carefully watched, so as not to carry it too far. Interruption of the respiration, pallor or blueness of the lips, stertor and irregular pulse are indications for suspending its use. When the patient no longer shows signs of consciousness when questioned, the effect is sufficient.

If these hints be observed, chloroform is safe, and although the patient will show signs of pain during the operation, he will have no recollection of it afterwards.

The chapter on camp dysentery, by Prof. Austin Flint, is very judicious and will repay a perusal by those in civil practice.

The Appendix contains a recruiting of miscellaneous items of interest to those in or desiring to enter the military service.

Prof. Hamilton is now in the military service near Washington, and has published some letters of interest relating to the health of the camp, etc. He is in a position to be useful to the profession as well as to the country, and the results of his extensive experience will be eagerly anticipated by the profession. B.

ALCOHOLIC DRINKS AND PHTHISIS.

From a paper by Prof. Austin Flint, in the *Am. Jour. Med. Sci.*, we extract the following judicious observations:

It is desirable, then, to inquire whether the statistical results given in the report by Prof. Davis warrant the conclusions which he draws from them. We propose to raise this inquiry.

Let us see, in the first place, whether Prof. Davis has pre-

sented all the postulates involved in the problem which he undertakes to solve. To determine the influence of alcoholic drinks on the development of phthisis, it is not enough to ascertain that a certain proportion of patients affected with this disease has been addicted to the use of these drinks. No one will assert that the use of alcoholic drinks affords an infaillible protection against the disease. The question is, whether they who habitually use these drinks are rendered thereby less liable to this disease than they would otherwise be. Now, it is ascertained that a certain proportion of a given number of patients affected with phthisis have been accustomed to use alcoholic drinks. This is one point in the problem. Another essential point is to ascertain whether this proportion falls below or exceeds the proportion who, in like manner, have used these drinks out of an equal number of non tuberculous persons in similar conditions of life. It is plain that we must have some standard of comparison by which to judge whether the proportion of drinkers among patients affected with phthisis be so large as to show an antagonizing influence of alcoholic drinks, or so small as to lead to an opposite conclusion. Prof. Davis appears not to have considered the importance of this in assuming that the results of the analysis of his cases leads to the conclusion which he draws from them. In fact, the statistical results of his analysis constitute but a preliminary step to the inquiry concerning the influence of alcoholic drinks on the development of pulmonary tuberculosis. Having obtained these results, the next point to be settled is, whether they show among tuberculous patients a large or small ratio of those who are addicted to the use of alcoholic drinks. How is this point to be settled? Plainly, the only way is to ascertain the ratio among patients not tuberculous, from the same classes of society of those who are equally addicted to the use of alcoholic drinks, and then institute a comparison of the results of the two analysis. Whether the results of Prof. Davis's analysis prove the influence of alcoholic drinks to be favorable to the development of phthisis, or otherwise, is thus, as we conceive, a problem to be settled by facts to which Prof. Davis makes no reference. In the absence of these facts, we have as much right to assume that the statistics given by Prof. Davis prove the prophylactic influence of alcoholic drinks, as he has to assume an opposite conclusion. Without assuming the former, we believe it will be found to be true.

The cases recorded by Prof. Davis occurred in hospital and

private practice. He does not state the proportion of hospital cases, but we infer that they constitute the large majority, from the fact that, of the 210 cases, in all but sixty the patients were foreigners, and the author indeed gives, as an explanation of the large number of patients from Ireland (85), the fact of his being brought into connection with this class in the Mercy Hospital of Chicago. We will suppose all the 210 cases to have been hospital cases. In 51 of these 210 cases, the patients had wholly abstained from the use of alcoholic drinks. This is certainly a large proportion of persons practising total abstinence to be found among the classes of patients received into a charity hospital. Would there be found 51 persons who had practised total abstinence for years among 210 hospital patients not affected with tuberculosis? But of the remaining 159 cases, in 91 the patients only used alcoholic drinks occasionally, some very sparingly and only on festive occasions. Now, it is absurd to suppose that an occasional indulgence, whether sparingly or in excess, is of any appreciable account in determining the influence of alcoholic drinks on the development of phthisis. These cases are to be excluded. So far as any influence is to be attributed to alcoholic drinks, the class of cases only is to be considered in which the persons "had used some form of alcoholic beverage almost daily from one to twelve years previous to the active signs of tuberculosis." To this class belong 68 of the 210 cases, or a fraction over 32 per cent. Now, is this a large or a small per centage? This question is to be answered after ascertaining the percentage of a similar class, as regards the use of alcoholic drinks, in 210 hospital cases not tuberculous. We are not in a situation, at the present moment, to appeal to facts, but we shall be surprised if they do not show a larger percentage; if so, assuming that Prof. Davis's cases were mostly hospital cases, his statistics will clearly prove the reverse of the inference which he deduces from them. Taking the statistics as they stand, we may reason *for* a prophylactic influence of alcoholic drinks precisely as Prof. Davis does *against* such an influence, and, as we conceive, with greater force. Prof. Davis's argument is, so large a proportion as 68 of 210 tuberculous patients being habitual drinkers, it is proved that alcoholic drinks exert no influence to prevent phthisis. *Per contra*, it may be said, so large a proportion as 142 of 210 tuberculous patients not being habitual drinkers, it is proved that alcoholic drinks do exert a positive influence in preventing phthisis.

With regard to the value of alcohol as a remedy in pulmo-

nary tuberculosis, Prof. Davis admits that an apparent improvement may be produced by it, but he says, "Truth compels me to say that I have never seen a case in which this apparent improvement was permanent." Inasmuch, however, as he states that the idea of alcoholic beverages preventing the development and retarding the progress of this disease when it was announced, was not in accordance with his views, and he began to collect cases in disapproval of this idea as long ago as 1855, it is fair to presume that he has not employed alcohol in the treatment of this disease to much extent. We confess ourselves to be among those who have been laid by clinical observation to attach no small value to alcoholic beverages in the treatment of phthisis. We are certainly able to cite a number of cases in which we have seen not merely a temporary, but a permanent improvement under their use, in conjunction with hygienic influences. But we reserve the consideration of this subject for some other occasion. * * * *

DE WITT COUNTY MEDICAL SOCIETY.

The Society met in the office of Dr. R. T. Richards, in Mt. Pleasant, Oct. 1st, 1861.

The meeting was called to order by the President at 10 o'clock A. M. The minutes of the previous meeting were read and approved.

Dr. R. T. Richards proposed Dr. J. R. Richards as a candidate for membership.

Society adjourned to meet at 2 o'clock P. M.

AFTERNOON SESSION.

The Censors, having examined the applicant, Dr. J. R. Richards, reported favorable to his election. Dr. Richards was then elected a member of the Society.

At a previous meeting of the Society, held in Marion, the first Tuesday in July last, Drs. Norris and Fairchild were expelled from the Society; but in order to give them an opportunity to come up and defend themselves, that portion of the minutes were not published. As they have not come up, therefore, the Society has resolved to sustain the proceedings of the previous meeting, and has ordered the Secretary to publish that portion of the minutes that were not published before, which is as follows:

Dr. Tyler charged Dr. Norris with unprofessional conduct.

)r. Madden charged Dr. Fairchild with ungentlemanly, nmoral, and unprofessional conduct. Drs. Norris and Fairhild were expelled from the Society.

On motion of Dr. Shurtleff, Dr. Waters was invited to articipate in the meeting.

Essays being in order, Dr. R. T. Richards read an excellent ssay on Typhoid Fever. The symptoms, pathology and reatment was in accordance with the general received opinons of the present day. After the reading of the essay there as a general discussion in reference to Typhoid fever.

Dr. Wright also read an essay, on Diphtheria, which was so followed by a lengthy discussion. Some regarded Diphheria as being, primarily, a local disease; but nearly all ooked upon it as being a disease of the whole system—the hroat affection being only one of its local manifestations, or xpressions.

Dr. Tyler offered the following resolutions, which were lopted:

Resolved, That a vote of thanks is due and is hereby tenered to Drs. Wright and Richards for their able essays read n the present occasion.

Resolved, That a vote of thanks be tendered to Dr. R. T. ichards, for the excellent dinner served up at the hotel for e members of this Society.

The President announced Pneumonia as the subject for eneral discussion at the next meeting.

Drs. Shurleff and J. R. Richards were appointed to read says. Drs. Edmiston and Adams were continued.

On motion, the proceedings of this meeting were ordered be published in the Central *Transcript* and Chicago EDICAL JOURNAL.

On motion, the Society adjourned, to meet at Waupella e first Tuesday in January next, at 10 o'clock A. M.

JOHN WRIGHT, M. D., Secretary, *pro tem.*

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ORIGINAL COMMUNICATIONS.

INTRODUCTORY ADDRESS, RUSH MEDICAL COLLEGE

By DE LASKIE MILLER, M. D.,
Professor of Obstetrics and Diseases of Women and Children.

GENTLEMEN OF THE CLASS:

We have assembled this evening to inaugurate the nineteenth annual course of lectures in Rush Medical College, and the pleasing duty is devolved upon me of extending to you a cordial greeting, and in behalf of my colleagues, the faculty, to bid you welcome.

The pleasure of this duty, is enhanced in no small degree by the relatively large number present on this occasion, of those who have identified themselves with the class, and thereby with the interests of this institution.*

At a time like the present, unparalleled in our national history, when the whole country is distracted by the prevalence of intestine dissensions, and the minds of all classes of our citizens are engrossed by the excitements of the passing hour, or by unpleasant anticipations of the future; it was not expected that any very large proportion of the people, and especially of the youth of our land, would remain indifferent or unmoved by the wildness of the scenes through which we are now passing, so as to turn aside from the broad highway of public commotion, and take their way, unmoved by excite-

* The number of students in attendance at the opening of the current course, exceeded that of any similar occasion since the organization of the College.

ment, in the quiet and peaceful paths of scientific study and investigation. .

Youth is emphatically the period of life, when the call of patriotism and the allurements of martial glory are most sure to excite in the breast a prompt response, and incite to deeds of noble daring. The dark cloud of war which now fills the whole national atmosphere, and obscures from view almost every object of ordinary interest, diverts the attention of the student, as it has interrupted the chosen vocation of all classes of society. It requires the change of but a single word, to make the language of the prophetic bard applicable to this country and to the present time:

> "Now all the youth of America are afire
> And silken dalliance in the wardrobe lies,
> Now thrives the armorer; and honor's thought
> Reigns supreme in the breast of every man."

From the effects of causes so potent, in arresting progress in scientific pursuits, and operating adversely to the interests of literary institutions, the friends of Rush Medical College anticipated no immunity. The fact, however, that you, gentlemen, are here this evening as Medical Students, and also that you represent so extensive a portion of our common country, even under the prevailing unsettled condition of public affairs, does not lead to the inference of a want of patriotism on your part; but rather that you are in the direct line of duty; for now, more than ever before, is there a demand for that skill in Medicine and Surgery which it is your aim here to acquire. That your numbers are so much greater than the most sanguine had dared to hope, is a source of great gratification to the faculty, and a reasonable ground for the friends of the institution to felicitate themselves upon its flourishing condition, and upon which they may predicate its future stability and usefulness.

The increasing favor and confidence with which this College is regarded by the profession throughout the country, furnish the stimulus, if other motives were wanting, to incite each member of the faculty to the most lively zeal in advancing

he best interests of the classes, which annually convene within its walls, and to unremitting industry to render the ourse of instruction here, in every department, as complete nd perfect as in any institution in the country. The faculty ully appreciate the importance of maintaining in this city, a Medical College of the very highest grade, and possessing, as ney do, every facility, and the requisite determination for its ccomplishment, the ultimate result may be predicted be-ond any contingency.

That the efforts of the present corps of teachers have been eceived with general satisfaction, is evidenced by the gratify-g compliment, conveyed in the rapidly augmenting numbers each succeeding class in attendance upon the lectures here. hen permit me, in extending to you, gentlemen, our kindly eeting, this evening, to assure you, as I feel at full liberty do in behalf of my colleagues, that if a predominant terest in your welfare and advancement, manifested by a dulous discharge of our several duties, may be taken as a arantee, the present course shall prove even more valuable an any preceding one.

This assurance is based not alone on the individual efforts the Faculty, but also on the fact that the means of illustra-n and demonstration at their disposal are so ample, that ery subject admitting of it will be presented in a demon-rative manner, or be fully illustrated—the advantages of hich cannot be overestimated.

While I speak thus encouragingly of the institution of ur choice, gentlemen, I cannot avoid congratulating you on your selection of a profession. The medical profession is e with which you may well be satisfied. While it commands te respect of all classes of society by its utility, it challenges teir confidence no less, by its certainty in securing the highest i erests of those who become the recipients of its benefac-tns. It also exerts a most happy influence upon those de-ted to the study of the *science*, or the practice of the *art*, by i tendency to strengthen the mind, refine the affections and

elevate the character. It is a mistake to suppose, as many do that the practice of Medicine, or of *Surgery* even, is calculated to harden the heart, and close the avenues to the kindlier sensibilities of our better nature, for whose words, if not those of the physician, can

> "Dart hope into the soul
> And cause comfort to dawn upon the distressed."

There should be higher and nobler motives to stimulate the medical student to assiduous application in the acquisition of his profession, or the physician to the prompt discharge of his arduous duties, than the mere hope of pecuniary reward or considerations of social position which the profession promises to confer. Though the first of these may be amply secured, by observing the same rules which ensure it in other departments of human enterprise, viz: by industry, economy and perseverance: and the latter may be as surely attained by the recognition and an honorable observance of the laws of society.

Still these, desirable as they may appear, and even necessary as they are conceded to be, are equalled, if not excelled by the gratification to be derived from the mental culture which the study of medicine requires, and the pleasurable emotions which follow the conscientious and skillful discharge of the duties of the physician. It is doubtful whether any other vocation demands for its successful practice an amount or variety of knowledge equal to that required for the skillful practice of medicine. In medical knowledge all sciences are represented. There is no branch of learning but may be advantageously applied in the elucidation of some medical principle, or lead to some valuable indication in practice.

The diversity of study has the pleasing effect of keeping the perceptive faculties active, and also of fixing the attention both essential to progress in every branch of study; while the extent of the field is illimitable, and may engage all the powers of the most gifted and industrious. Thus the pleasure and interest are ever increasing; from the time when the tyro receives his first simple lesson, on through the entire

ourse of his pupilage; nor is the climax reached till the ctive duties of our noble profession are laid aside at the atural close of life, for, if well employed, the principles hich guide the physician are

"The wings wherewith we fly to Heaven."

Should any infer from what I have said, that the pleasures f the physician are unalloyed, and to be enjoyed in listless ase, or exemption from labor and every annoyance, let such e at once undeceived, for I assure you that the life of the hysician is one of constant toil, and attended by constant nxiety, from a consciousness of the fearful responsibility ssumed. The life of the patient, and his own reputation are epending, and where the event is fatal; by the malignant hispers of malice or envy, he need not be surprised should e occasionally meet with undeserved censure and the most liberal treatment, especially among the ignorant classes, who, eing swayed by prejudice and vulgar errors, judge without eason and condem without mercy. The tongue of slander s as much at liberty as the tongue of truth, nor is it in his ower to prevent the former from proclaiming its injurious alsehoods. Since you will hereafter be liable to receive your hare of this detraction while in the discharge of the duties hich will devolve on you as members of the profession, I ay be allowed in passing to give you a general recipe, which ill surely antidote all such ills, it is short, and is this: ever ct in such a manner as not to deserve it, and the conscious- ess of having done your duty, will afford you a consolation hich nothing can take away.

While some whom I now address, are known to have made onsiderable progress in the acquisition of medical knowledge nd are familiar with the routine of college life; it is reason- ble to presume that there are others present on this occasion, ho occupy seats in the lecture room as a constituent portion f a medical class, for the first time. With the feelings and motions of such, I can most fully sympathize. It may be,

you feel the diffidence which results from inexperience in the great world, or the loneliness which follows the separation from friends—and the confusion of being surrounded by new and stranger scenes, while you entertain but an imperfect idea of the amount of labor to be performed, or the obstacles to be overcome in the acquisition of the profession, and which profession, you may apprehend, may at last disappoint your hopes, either from your own wants of adaptability for its practice, or for anything which you can affirm to the contrary, by its own inherent elements of uncertainty. All these combined, if allowed an undue influence, will bear so heavily upon the spirit, as to seriously retard your progress toward the goal of ambition. These considerations have suggested to me the propriety of offering some thoughts upon the *certainty* and *utility* of medicine, as a science and an art.

This subject, I am sure, will not be devoid of interest to you, and I deem it a point of the first importance, that all doubt relative to the certainty of medicine should be removed from the minds of those pursuing the study or engaged in the practice of the profession; otherwise success will be at best but problematical. A sincere and true philosophy pervades the words of Cabanis, and they convey a deep sense, which forms the basis of all medical investigation and successful practice, says this philosopher: "In order to study and practice medicine in a proper manner, it is necessary to be impressed with its importance, and to be so impressed we must believe in it." This proposition is so manifest to the reflecting mind as hardly to require elucidation or argument to ensure its general acceptation. The successful cultivation of any department of science, requires on the part of the individual the power to control and fix the attention. The paramount importance of such ability and the disposition to exercise it, must be manifest in the study of medicine which comprises the sum of all sciences. Is it not quite certain that without this faith in medicine, the mind of the student would incline to inactivity and listlessness, and the attention would

become so easily diverted, by the thousand distracting influences which always surround him, that but very unsatisfactory progress will be made. This state of mind is equivalent to indifference, and indifference is fatal to true advancement, either in the study or practice of medicine. It will lead to the most serious consequences, in the exercise of the art, by the liability of adopting inefficient or inappropriate means for the removal of disease.

In this, we find the source of much of the odium cast upon the profession, and it is, at least one of the causes of the skepticism, in regard to the certainty of medicine which undeniably prevails to some extent in the public mind. To relieve himself from censure, the unskillful practitioner is ever ready to charge his want of success to the imperfections of medical science. The inconsistency of attributing the failings which result from the incapacity of the individual, to defects of the system needs but be stated to be appreciated.

To assume that the science of medicine is now absolutely perfect, and that every part thereof admits of actual demonstration, would be to argue the impossibility of improvement. While we freely admit the imperfections of the system, we at the same time feel a just pride in affirming, that in no other profession is such rapid progress making towards perfection as in ours. That no class of men are more zealous, nor have they been more successful, in the cultivation of general science, at the same time that they have been engaged in the advancement of their own particular calling, than the members of the medical profession.

It is believed by some that the diversity of opinion which prevails among physicians upon medical topics, theoretical and practical, is an unanswerable argument against the certainty of medicine. But admit this to be valid; and it would be easy to show, that the same charge will hold against almost every other vocation. Do we find a greater unanimity of opinion to prevail among the members of other professions than in our own? It would be interesting in this connection

to review some of the peculiarities of the principles and practice of the various vocations, recognized in civilized society, from which we may learn that diversity of opinion is not peculiar to medicine. From the want of time, however, a hasty glance must satisfy, our object not being to cavil at others.

We might naturally suppose that in *Theology* we should find the prevalence of the most perfect harmony of opinion, both upon the great doctrines of Christian faith, and of practice, based as they are upon the word of Inspiration, which is eternal verity, and unchangeable, and so plain, that he who runs may read. And yet, can there be anything more diverse, than the opinions entertained, and drawn from the Holy Scriptures, by those who make the Bible their constant study, and this too, not alone on points of speculation or of inference, but upon what would seem to be the plainest and most positive teaching of the Divine Code.

Or turn we to that other learned profession, the *Law*, which is claimed to be the perfection of human reason, and if it be asserted that the deductions in medicine be in any particular uncertain, what may we not say of those peculiar to the law. Its doctrines are written—its decisions voluminous—and every instinct of man would lead to a just decision, for the whole science is but a question of right and wrong. Here then should we not reasonably expect a concurrence of opinion—an agreement in conclusion, and especially so, as time is taken for mature consideration; and yet the contrary is of such frequent occurrence that the uncertainty of the law has passed into a proverb, which has been sarcastically and pertinently hit by Swift, as follows:

> "Demur, imparlance and essoign
> The parties ne'er could issue join;
> For sixteen years the cause was spun,
> And then stood, where it first begun."

In political economy the same still holds true. Do our statesmen agree in their opinions of manufactures, of banks of currency, of tariff, or indeed upon any of the great questions of public policy? These instances are sufficient to show

that diversity of opinion is not peculiar to our art, nor does our profession suffer by comparison with others. Navigation so far as it depends upon mathematics, is demonstrative, for by its rules the navigator is at any moment enabled to determine his exact location and the rate of progress. But when a prediction of the duration of the voyage is required, all becomes uncertainty, for a knowledge of the future prevalence of adverse winds is not revealed by his art. And during the prevalence of the tempest,

> "When gathering clouds like meeting armies
> Come on apace,"

And dash the billows in fury high above the prow, threatening destruction to sail and stay, and spar, not only is the successful termination of the voyage, but the safety of the bark itself, as much a problem as when the skill of the physician is tested in guiding the frail bark of life, through the struggling elements of disease which threaten its destruction.

Of the utility conferred by the medical profession upon individuals, upon society and the State, much might be said. These benefits, however, must be estimated by a different standard from that which rules in the ordinary business transactions of life. In these we may approximate if we do not reach with unerring exactness the results of labor. But the utility of the medical profession *cannot* be demonstrated by any pecuniary valuation; it reaches beyond and above all this, and must ever do so, while man remains subject to the same impulses and is actuated by the same motives which now and ever have governed him. The enjoyment of health and the desire for longevity are objects of the most intense interest to all, and only when these can be measured can we fully estimate the value of our profession, for, to secure these, the principles of our art are in constant requisition.

There have been those to question the utility of *science* in medicine, and insist that instinct, unaided by rules, is the best guide, in all cases involving either the health or the life of the individual. To illustrate the absurdity of such an assump-

tion, we need only refer to a few of the ordinary contingencies of ordinary experience. The traveller, under the scorching rays of the meridian sun—way-worn and weary—and parching with thirst, upon reaching the limpid stream that flows from the cool retreat of the mountain recess, would, by the promptings of nature, without delay slake his insatiable thirst, heedless of the danger he would incur. In case of luxation, actuated by the promptings of nature alone, every surgeon knows how strenuously, on account of the pain, the individual would resist the least attempt at motion, though this offers the only means of permanent relief, by the restoration of the joint. Or take another instance: in post partum hæmorrhage, where sudden death is inevitable, except the means of relief be directed by the rules of medical art; or in certain preternatural presentations where two individuals would certainly perish, where it not for well directed efforts to correct the errors of nature, and we surely have sufficient to indicate how futile is the assumption that the principles of medical science are valueless.

You will perceive that the exercise of these principles of medicine, in the prevention or the removal of disease, is something more than a mere trade; for while some of the causes of disease are physical in their nature, and tangible, whose effects may be anticipated, affording us opportunity to neutralize them; others are imponderable, and are everywhere prevalent in nature around us, the perturbations of which in the system are varied almost to infinity. These effects are all the more subtle, as they are manifested in the organized living and ever-changing structures of the body, which are so delicate and inimitable in their arrangement, as to impress the mind most profoundly with awe and admiration. The means to be relied on for the removal of these effects in the system must be regulated by the laws which regulate the sentient-vital principle—which govern the mental manifestations and control the physical forces of the system. The skillful physician must comprehend most perfectly the nature of these laws,

and their influence in health and in disease; he must be intimately acquainted with the structure and arrangement of all the organs of the body, so that like the accomplished musical artist, who, familiar with the office and relative value of every key and chord in the complex structure of his favorite instrument, promptly detects the discord which results from derangements in any part, however slight or seemingly unimportant, and by timely aid restores the normal condition, and thus replaces the discord by the concord of sweetest harmony.

The question, then of paramount importance recurs, what estimate should be placed on the medical profession, and why should it command public confidence? These questions, perhaps, may be best answered by taking a brief retrospect of the profession. That faith is reposed in the efficacy of medicine, is incontrovertible; for, however much individuals may cavil at the profession, while in health, it is their first resort when beset by disease in any of its thousand forms. And what is true of the rofession in this respect at the present ime, has been true of it ever since medicine was first cultivated as a science. And that this general conviction in the ublic mind is well founded, is most fully attested by the ecords of the past. While history is sometimes our best eacher, it may also be appealed to in support of the right, with the utmost confidence, as its testimony bears the impress f unerring certainty, and by its light, likewise, we are enabled o cast our vision back through the long lapse of centuries, ill we observe the origin of our noble science in the early norning of the existence of the race. By such a view we hall be impressed with the fact that medicine did not uddenly reach its present degree of perfection, but gradually, y slow and many times unsteady step, as an illustration aken from early practice will show. The people of high ntiquity, exposed the sick in public, so that any who passed, hat had been similarly attacked and cured, might give adice for the benefit of the sufferer. And at a later period,

this plan was much better calculated to accelerate the progress of the art, for all who were cured of disease, were required to go and make an inscription in the temples, of the symptoms of their disease, and the curative agents which had been beneficial to them, and these registers were kept with the same care as the archives of the nation, and every person had the privilege of going to consult them, and of choosing for his sickness or that of his neighbor, the medicaments of which experience had confirmed the value.

Medicine in this early time occupied a very different position from that accorded to the profession now. Then its influence and efficacy were limited in amount and circumscribed in extent, and as the feeble rays from the glimmering taper seem fitful and uncertain; so in this primitive time was the practice of the healing art. But its office has ever been to cheer and to bless, though feebly and indifferently at first, yet from that time to the present its progress has been steadily onward and upward, till every portion of the civilized world has now become the recipient of its blessings, for, like the glorious luminary at meridian, it dispenses its genial influence upon all.

Medicine relates to nature, its defense and preservation, and no power that man possesses can surpass it in ameliorating the physical condion of the race. The most casual observation is sufficient for the confirmation of this truth, for individual cases cannot be wanting to any, in which they may have seen the efficacy of medicine demonstrated, and which leave on the mind no doubt of its potency. The same thing which you have thus witnessed in your individual observation has been many times repeated in society generally, so that we are enabled to affirm that through the direct influence of the science of medicine, the aggregate duration of human life has been greatly prolonged, even during the last half century. But upon this point, which is one of such inherent importance and so pertinent to the object before us, I will not limit myself to generalities, or mere assertion, but descend to the testimony of figures. In the broad field of vital statistics, we may find

incontestible evidence of the verity of our position, and also that by the same influence the duration and the suffering from disease has been greatly abbreviated and alleviated.

The reports of the Parisian Hospitals show, that while, in 1858, one died in seven who were admitted, now only one dies in twelve; thus demonstrating that our science has increased in its ability to save life, in the same order of diseases, and in the same buildings, about seventy-five per cent. in little over half a century.

In other words, in the Paris hospitals, where formerly fourteen men died of each hundred admitted, now only eight die, a saving of six persons in a hundred, and in the eighty thousand who annually pass through these wards, a saving of five hundred human beings. From the same source we learn that the period of their stay is greatly lessened; the average time of the residence in these institutions was formerly about thirty-nine days, now it is about twenty-four, making a difference that amounts to a very large per centage since 1805.

A corresponding improvement in the treatment of certain special specific diseases, during the same time, is also demonstrated. While in 1805 one patient died in every fifty-six subjected to treatment, now only one case in two hundred and ninety-four proves fatal.

In England, according to Macaulay, the term of human life has been greatly lengthened in the whole Kingdom. In 1685, not a sickly year, one in twenty of the inhabitants died, while at present, in London, only about one in forty dies.

In surgical practice, the saving of life at present exceeds by more than thirty-five per cent. the results at the begining of the present century. The returns of the Registrar General of England show a steady and notable decrease in the rate of mortality. In Renouard's History of Medicine, we read that in France, according to Dapin, the duration of human life has been increasing equal to fifty-two days for each year, from 1776 to 1842, or nine and a half years for the whole period.

The increase per annum was at no period less than nineteen

days, although that revolutionary and warlike nation shed seas of blood, not only in her cities, but upon every battle field of Europe.

In obstetric practice, one hundred and fifty years ago, according to Dr. Merriman, *one patient in every forty died.* At the close of his table, in 1828, only one in one hundred and seven died, and at the present time, probably not one in two hundred and fifty.

The improvement in the management of the diseases of infancy is still more conspicuous. M. Quitelet, in his very learned table, states that, in Belgium, of infants born alive, one tenth died within a month, and by the fifth year nearly one half the number of children had died. In Prussia, during the interval from 1820 to 1828, the deaths in the first year were in the ratio of over 26,000 to 100,000. In France, in 1802, it amounted to over 21,000; in Amsterdam, over 22,000, from 1818 to 1829; in Sweden, to over 22,000, from 1821 to 1825. From the Registrar General's report of England, it appears that more than one third of the total deaths in England and Wales occur under one year of age. In Mr. McLean's visit to St. Kilder, he states that eight out of every ten children die between the eighth and twelfth days of their existence. Dr. Combe states that about a century ago, the workhouses of London presented the astounding result of twenty-three deaths in every twenty-four infants under the age of one year; but by improved management, the proportion of deaths was speedily reduced from 2,600 to 450 a year.

One more illustration taken from Dr. Willan's tables, shows the following results:

From 1749 to 1758—1 in 15 children died.
" 1759 to 1768—1 in 20 " "
" 1769 to 1778—1 in 42 " "
" 1779 to 1788—1 in 44 " "
" 1789 to 1798—1 in 77* " "

Much more might be cited to prove, that important and

* Churchill, on Children.

rapid advances have been made in the treatment of infantile diseases, but sufficient has been advanced for our present purpose. By this view of the subject, we are forced to dissent from the sentiment of Spenser, and can only excuse it by granting him a poet's license, when he asserts that,

"The term of life is limited,
Nor may a man prolong or shorten it."

By comparing the hospital reports from the different parts of this country, the same results will be obtained as those derived from corresponding institutions in Europe.

Now, from these various sources, we demonstrate that the duration of human life, through the direct agency of our profession, has been prolonged within the last seventy-five years more than thirty per cent. Should it be urged that the cessation of warlike hostilities, and the general improvement in the condition of the masses, will account for this gain, we have but to compare the reports of hospitals seventy-five years ago, with the reports from the same institutions now, and as these are the peculiar battle fields of the physician, they may with propriety be taken as the indices of what has been done for society at large.

How eloquent are figures in support of the position I have taken! How demonstrative of the utility of our beneficent profession to the best interests of man! It is sometimes interesting thus to take, as it were, a birds-eye view of the profession, as it has made its advances, through the ages past, and note the many triumphs which it has achieved in reaching its present exalted position, and we might, had we time, individualize the persons who have done so much for its perfection and usefulness. Is it probable that a profession which has accomplished so much, and made with rapid strides such a near approach to perfection, is henceforth to stand still, content with what the past has done; or, even as those who put their trust in "pellets" would have us believe, be forced to recede from its present advanced position, loose its hold upon the confidence of an appreciative public, and be lost in forgetfulness? With all this volume and weight of evidence of

the utility of medical science, to the State, to society and to individuals, which are accessible to all, and even much more than I have cited, there are those who express a want of confidence in medicine as taught and practiced by the profession at the present day, but affect a faith in the baseless pretensions of one or other of those excrescences of society, who, attached to some of the irregular and exclusive systems, swarm around, like the flies in the fable, merely to "*bleed*" the victim on whom they may chance to alight, while caught in the branches of credulity. But neither these systems of quackery nor their adherents, or their assumptions, are peculiar to our time. There has never been a period in the history of medicine when there was not one or more opposing sects and exclusive systems, which, by clamoring against the profession, hoped to foist themselves into popular favor; but the history of all such shows how miserably they have failed of ultimate success. Not one of them all, though their name be legion, has endured the ordeal forced upon them by the test of time. Nor was it in the nature of things that they should, for being founded on baseless assumption, it was inevitable that they must succumb to the overwhelming power of *experiment*, *induction* and *demonstration*. *These* constitute the Ithureal spear, at the touch of which they

> "Return
> Of force to their own likeness,
> * * * * * * *
> And start up in their own fiendish shape."

These form the Herculean Club that ever has, and must continue to strike off the heads of this hydra monster; *these* constitute the rock that is to bury them successively forever from sight.

That alone is enduring in our profession which is founded upon this rock, *experiment*, induction and *demonstration*. All else, however specious its pretensions, must as inevitably disappear, as the dew before the morning sun. From this standpoint, we may safely and confidently predict the fate of the

those systems and theories which at the present time endeavor to direct attention from scientific medicine. Is not the history of "*Similia*" and "*infininitesimal dilutions*" already well nigh written? For, what is the practice of the sect to-day? Do they hold to a single cardinal principle of their founder? Let the practice of their leaders answer; they administer the remedy that *experience* has found most efficient, and in doses to produce *sensible* effects. Thus we see there is absolutely nothing left of this system but its name. And why should it not be with this, as with every other assumption which is utterly devoid of sense or reason? If an individual were to claim that he had the power of healing a wound made by a cutlass by extending it with a saber, would you think he could induce followers to exercise faith in his pretensions? Perhaps not; and still there are not wanting those whose opinions upon medicine are quite as absurd as this would be. I am sure I know of no way to account for such a perversion of common sense except it be that their minds are so constituted, that the more you dilute the sense, the stronger to them you make the argument.

You may apply still another test to any or all of the exclusive systems which have been set up in opposition to medicine. While their adherents attempt to cast odium upon the profession, by flippantly asserting that *they* are of the progressive school, while the old school remains where its founders left it, you will ask in vain to have them point out any, even the least real improvement in medicine contributed by their adherents, or that has been introduced as the result of their system. What new fact in Anatomy? what in Physiology or Pathology is indebted to them for its birth and usefulness? What new principle in Therapeutics, or what valuable article of the Materia Medica has been added to the sum of human knowledge, by any of the exclusive systems of the present or past time? I am sustained by the record, when I affirm that nothing absolutely of value has been contributed by any of these pseudo reformers.

Gentlemen, I will not pursue this line of thought further. I am sure you already appreciate, at least in some degree, the importance of the subject, and the extent of attainments which a knowledge of *medical science* requires. If you have a just appreciation either of the extent or variety of learning necessary to constitute you skillful physicians, you cannot fail to perceive that this is to be acquired only by laborious and persevering application. For this purpose you are here, and it is hoped, for the single purpose of preparing yourselves for the discharge of most important and responsible duties. It will be our pleasure, as well as duty, to aid you in so doing. If we may but initiate you into the mysteries of our profession, it is all that we can reasonably hope. We need not attempt to teach you all that you are to learn, for the goal indicating the end of improvement in our profession is not yet in view. This fact should, nay, will stimulate you to extend your explorations, even beyond the regions already surveyed and maped out to guide you in starting. Ever remember that opportunities for the brightest achievements are still before you.

You already infer that I would not have you lapse into a state of listless ease and indifference, vainly hoping that when the period has passed in which we are to meet within these halls consecrated to science, and you have taken your departure and are engaged in the active duties of your calling, that then the needed knowledge will come to you as by intuition. I admonish you now, as I should warn you early, that you may *thus* occupy those seats, till you become transformed into fixtures, and you will still be as far from the attainment of your hopes as ever.

It is related of Mercury, that in exchange for the Lyre, he received from Apollo the "*Caduceus*," the insignia of his power and success. This was a staff, one end of which was ornamented with two wings, and around it two serpents were entwined in graceful coils. The wings were indicative of *diligence*, and the serpents of *prudence*—two characteristics

long ago deemed essential to success in every undertaking, and the experience of ages, has fully confirmed the truth of this principle so beautifully illustrated in classic mythology of the ancients.

To you, young gentlemen, just setting out in the attainment of your profession, I know of no more important characteristic than *diligence*, and especially so would you attain an honorable position in the noble profession which you have chosen. If you have undertaken the study of medicine under a deep and abiding appreciation of its responsibilities, and the indispensible necessity of unremitting *diligence* in its pursuit, which I have a right to assume from your presence on this occasion, then I would bid you a hearty God speed in the attainment of your most lofty aspirations.

I feel confident you have resolved, without the least mental reservation, that your industry and application during the current session, shall be commensurate with the imperative demands upon you as medical students. That though the road which you are to travel may lead up the steep ascent, and seem beset with apparently insurmountable obstacles, yet that you will boldly advance. Then let me say, that if you approach the task with a *determined will* and with *diligence*, the obstacles are only apparent, and your ascent will be more and still more easy, as you advance, till what at first seemed tedious and dispiriting, will give you the keenest pleasure, as you hear

"A voice replying far up the hight,
Excelsior!"

Our position demands that we instruct you not only in the principles of our science, but also what may be essential to some present: that we teach you how to learn. To acquire a knowledge of the principles of medicine while in attendance upon the course of instruction to be given here, which, as in the acquisition of knowledge generally, will require the co-ordination of all the faculties of the mind, and the active and vigilant exercise of all; and not only this, but the co-operation

of a healthy body; for if the body be not intact, the mind, from a physical necessity, can neither make the desired or the normal progress, any more than a defective instrument can yield the strains of harmony.

The proper training and exercise of the intellectual faculties hold a place of first importance in your course of education. Observation must be cultivated, perception quickened, memory strengthened, and reflection must be ever active. How can all this be effected? Can it be best accomplished by the practice so universal among medical students, of taking notes of the lectures, during their delivery? These are questions which claim your careful consideration, now, at the opening of the course. Were I to answer from my own experience, or from the observations which I have made upon this particular point, to the latter question, I should unhesitatingly say, no. There are comparatively very few of those who compose the classes in the various Medical Colleges in the country, who can commit the teaching of the lecture to paper with such facility as to omit nothing of real importance. This is of itself an art, that only the few possess who make it the business of their lives. Without disparagement, I think I can state, as the rule, that only disconnected sentences are written down in the lecture room, and these not always the most important. And while this has been thus imperfectly performed, much of the lecture that was of importance to be remembered, is lost beyond recovery; so that at the conclu sion of the hour, but little more than a vague and confused impression of the lecture is left on the mind; and should the student refer to the notes to correct errors or fill up the hiatus, they will be found entirely inadequate, or if a resort be made to the *Text Book* for the purpose, the entire subject must be read, and the lecture, so far as the individual is concerned, need not have been given. But such an amount of reading during the progress of the lectures, is manifestly impracticable. The use of the text book should be limited to recalling the fact or principle inculcated in the lecture, which may acciden-

tally have passed from even a well regulated mind. Is it not clear then that the mode usually followed, of taking notes in the lecture room, is not, in every case at least, calculated to improve the intellectual faculties, or leave a lasting and distinct impression of the subject upon the mind.

I would not have you infer from this, that I disapprove of taking notes of the lectures. The practice, however, which I would recommend to you as worthy a thorough trial, is this: After having given your individual attention to the several lectures of the day, and you have reached your rooms, in the evening, commence with the first lecture given in the morning, and write from memory as much of it as you can; then do the same with the second, and of all the lectures given during the day. Although your first efforts may not be perfectly satisfactory to yourselves, yet, by industry and perseverance, your improvement will be such, that you will, yourselves, be surprised at the progress. I have known those who could thus reproduce the lecture almost entire. When you can do this you will have made the knowledge contained in it your own for all time.

Before passing I wish to impress upon your minds what I conceive to be indispensable, viz: the habit of controlling and *fixing the attention.*

There are good reasons for the opinion that this ability to *fix the attention*, is a principal cause of the difference in the intellectual manifestations of different individuals as we meet them in society. We are in the habit of attributing the cause of such difference to original conformation and natural endowment. While this relieves the individual from much of the responsibility of non-improvement, we still insist that intellectual improvement is to a great extent under the immediate control of the individual, by his voluntary efforts in directing the faculties and fixing the attention. This should be so complete that for the time, by abstraction, to become oblivious to all that would divert the mind or distract the powers of reflection. Except this power be cultivated so as to become habit-

ual, you will subsequently learn, to your great regret, that your time has been well nigh misspent; and that while you have supposed you were making some progress in your studies, you will find that you are but a little way removed from the point whence you set out. For the impressions which are made upon the mind, while in a listless or distracted state are never lasting; they cannot be enduring, but must be as evanescent as

> "The snow-drop in the river,
> A moment white, then fades forever."

This is the result of a physical necessity, depending upon the peculiarity of human organization. The registering gangha of the brain require that every impression made upon them, be continued for a definite period of time, so that the image may become daguerreotyped there; may be limned by the pencil of the spirit; that memory, aided by this picture, may recall the idea in after time, for use in the active duties of life.

If *diligence* is of the first importance to you as medical students, so is *prudence* essential to ensure your success, not only as physicians, but to you while on the threshold of the profession. Every circumstance which may have any influence upon your individuality either as students or physicians, or as men, claims your most serious consideration, and no circumstance of your lives is to be regarded as of trifling moment, though it have but a seemingly slight influence in giving a bias to your thoughts, or irregularity to your habits. For although it may appear to be slight in itself at the present moment, it may by no means be trifling in its consequences. You are to remember that the human mind is ever plastic, and never more so than in the spring time of life, when it is ready to take any form or move in any direction, which the circumstances of accident or fortune may impress upon it.

Like the waters of the lake, whose mirrored surface is so easily thrown into agitation, that even the dropping of a pebble into its glassy bosom, unsettles its quiet surface; though

limited at first, yet the agitation, in widening circles, extends until it is lost in the distance.

So is it with impressions made upon the mind. They may be so slight as well nigh to pass unheeded, but they are ever gaining strength and extending their influence. Therefore I charge you guard most zealously against the admission of all influences, whose *tendency* would be to lead the mind from the practice of industry and the path of virtue and honor. Never for a moment lose sight of your own manliness. You would do well to adopt the sentiment of the poet as your own:

> "We live in deeds, not years—in thoughts, not breaths—
> In feelings, not in figures on a dial;
> We should count time by heart-throbs. He most lives
> Who thinks most—feels the noblest—acts the best."

After what I said, I certainly can have little need to admonish you to guard especially against every inclination, to give loose reins to habits of dissipation or any other vice, the indulgence of which would enervate the intellectual powers, and retard the improvement of the mind. I will not then detain you longer; but, in closing, allow me to reaffirm, that excellence is never granted to man, but as the reward of labor. It argues, indeed, no small strength of mind to persevere in habits of industry, without the pleasure of perceiving those advances, which, like the hands of a clock while they make hourly approaches to their point, yet proceed so slowly as to escape observation. Need I then re-enforce the necessity of continued application. You must have no dependence on your own genius. If you have great talents, industry will improve them. If you have but moderate abilities, industry will supply their deficiency. Nothing is denied to well directed labor—nothing is to be obtained without it.

CASES OF PLACENTA PRÆVIA.

By JONATHAN W. BROOKS, M. D., of Chicago, Ills.

The following monograph of five cases of Placenta Prævia, which have occurred under the writer's observation during the last twenty-five years, will perhaps go directly to confirm an opinion expressed by some eminent practitioners, to wit: that the placenta should be entirely separated from the uterus, as early as possible after labor commences, attended by hæmorrhage arising from this peculiar point of attachment; for this important reason, that the hæmorrhage is thereby promptly arrested, and the risks both to mother and child materially lessened.

Case 1st—Was called to L——a M——n, of N—— H——, prima para, unmarried, May 7th, 1836, at 5 o'clock A. M. The following is her own brief and sorrowful history, as narrated to me by Mrs. B., with whom she boarded, her own sister and another relative: An orphan, aged 17 years and 4 months, unmarried; enciente, by her sister's husband. Was drugged constantly for seven months after the interruption of her catamenia, which, from her statement, occurred early in August, 1835. Had never known a sick day until about the tenth of Sept., same year, when she took essential oil of savin in twenty drop doses, three times per diem, for five consecutive days; said it purged and vomited her dreadfully and made her have some show, yet did not remove her burthen, but left a tenderness all over the stomach. From that time to early in April, 1836, she took nostrums and drugs, always being poorly. About April 6th she had some intimations of approaching labor, by cutting pains, &c., accompanied by hæmorrhage; at which time she had a midwife in attendance.

Toward the close of April she was removed from N—— H——, to near my residence for the purpose of concealment. She was then placed in charge of a professed midwife—a stranger to all parties; who, with those in attendance, reported labor as having commenced about four hours previous to my arrival and flooding about two hours. They were not alarmed until half-past four o'clock, when a severe and protracted pain was accompanied by copious flooding and alarming prostration. At 5 o'clock A. M., the following aspect presented itself: The bed and bedding were drenched in blood; the patient restless, her countenance pale and anxious; pulse one hundred and fifteen, quick, and her extremities cold. Examination per vaginam, os uteri very tender, dilatable to some extent, but not well relaxed; placenta placed directly over it; about one-third of that portion towards the left acetabulum of the patient was detached from the uterus, whence was issuing the blood. The membranes were evidently unbroken. It was my first case of the kind.

The danger being imminent, proceeded instantly to detach the residue of the placenta with the index finger of the right hand, which being accomplished, the hæmorrhage ceased, and within six minutes a very heavy, strong pain expelled the placenta, the liquor amnii, and brought the child near the vulva. A second pain followed almost without interval, expelling a well developed boy weighing nine pounds, feeble yet viable. No blood was believed to have been lost after the separation of the placenta. The uterus contracted feebly. The child was handed to an attendant, placenta and all, and afterwards attended to; and was a fine healthy man in May, 1861. A bandage was applied* (of the pattern still preferred

* The bandage consists of a body and four straps, all made double of heavy new muslin, that has been thoroughly softened by washing. Length of body thirty-six inches, width of ends nine inches; the centre should be four inches wider, and that part nine inches between the corners. The point between the widest and narrowest part of the body should form an arc. Two straps, twenty inches long, to pass around the body, five and a half inches wide where they attach to the middle of the body and four and a half inches at the other end. Five inches from the left end of the body should be a perpendicular opening to

by me) as speedily as possible to the mother. There was jactitation and constant throwing of her arms and hands, a blanched and still more anxious countenance, pulse one hundred and fifty with intermissions, faintness. Gave Tinct Opii thirty drops, brandy, as much as she could swallow. In thirty minutes repeated the Tinct Opii. In forty minutes, no rallying; gave Tinct. Opii fifteen drops, Spts. Camphor twenty-five drops. In ten minutes more gave six grains Carbonate of Ammonia in a solution of Gum Arabic; applied dry warmth to extremities, &c. But all to no purpose. She continued to sink, and died from exhaustion in about two hours from the birth of the child.

Leave being obtained, an autopsy was had thirty hours after death. External aspect, complexion fair, surface peculiarly white. An indentation on the right parietal bone, a little below the protubuance, said by her friends to have been produced by a fall during a convulsion, which was supposed to be caused by some drug she had taken. On the right side of the abdomen, on a line with the umbilicus, was the appearance of a bruise, dating back some time, and believed by her friends to have occurred at the same time as the indentation of skull. Body very plump; rigor mortis rather slight. On opening the abdomen the intestines and omentum were found agglutinated to each other by inflammatory lymph on exudation. Opposite the bruised point the exudation was more striking. Some blood in the vessels. Portions of the peritonum gave evidence of inflammatory action. Uterus well contracted, more pale than usual; indubitable evidence of the exact attachment of the placenta over the os uteri. The other visceræ of the abdomen in a generally healthy condition, as well as those of the chest. Under the indentation of the cranium was a small extravasation of blood apparently in

receive the right strap, which prevents slipping. These straps fasten in front. Two straps, eighteen inches long, one and a half wide, one end of each attached to the body of the bandage, eight inches from each end, and the other ends fastened to the corners of the widest part of the bandage. These embrace the thighs and keep the lower part in situ.

rocess of removal by absorption; otherwise the contents of ıe cranium appeared healthy, but pale.

This was a case where ecbolics had been used, so for as we ıay credit the testimony of others, to a greater extent than as ever fallen under the writer's observation, and, in his pinion, contributed largely to the fatal result.

Case 2nd—E—— M——r, married, has had syphilis and iiscarried from the third to the fifth month four times pre- ious to Jan., 1844. Was called to her January 4th, 1745, at o'clock P. M. Examination per vaginam elicited the follow- ıg condition: Blood oozing freely from os uteri, some ten- ierness of same.

On interrogation, says she was washing, and while at the ıb something seemed to give way and she began to flow hard ıen, and it still continued, uneasiness and pain in the uterine gion. Absolute rest in the recumbent posture, Tinct. Opii venty drops in water, quiet to be observed. Two o'clock, ıeasiness, abating hæmorrhage also. Tinct. Opii, fifteen ops in aqua. At half-past two she fell asleep and continued for forty minutes; awoke refreshed, with hæmorrhage very ight. Gave ten drops of Tinct. Opii. She soon recovered.

Feb. 8th, 1845—Was summoned to her at 2 o'clock A. M. n arrival the following condition presented itself: Bedding ıd clothing very much saturated with blood. The patient d not seem exhausted. Reported herself as having had bor pains for two hours. At twenty minutes of two, she ıd a brisk pain, and flowed, she thinks, ten minutes; then, th another brisk pain, something seemed to come low down the passage; since which she is confident she has lost no ood.

Examination.—Placenta at the vulva. In ten minutes it ıs expelled with some liquor amni.

Farther examination informed us that the fœtus was pre- nting by the feet. In eleven minutes it was expelled by ıtural efforts, and gave some equivocal signs of viability. ıe mother believed it to be an eight month's one, and

appearances would confirm that opinion. Its abdomen wa dropsical. She made a good recovery, and in ten montl gave birth to a son at eight months that lived five weeks.

Case 3rd—Was called in consultation in case of Mrs. E— C——h, May 24th, 1850, with Dr. T——, the attendir physician, at 6 o'clock A. M. Believes herself about thr months advanced in her sixth pregnancy. Is a pale, delica woman, of fine intellectual endowments and culture. In h first labor had several convulsions. Complains of pain ar weight lower in the maternal organs than she has ev experienced in previous instances. She has for several da had moderate hæmorrhage (passive), but kept up with h family, attending to her ordinary duties. Examination r vealed closed os uteri and oozing of blood. Has some hea ache in the erect posture, with a blowing sound in her ea which is somewhat relieved by reclining. Pulse ninety, qui and feeble. Heart easily excited to palpitation by nois bowels relaxed, urine excessive in quantity and pale, feet little swelled. Absolute rest in recumbent posture. Ta Tinct. Opii fifteen drops.

℞ Quinine Sulph. iss ☉
Gum Opii Pulv. gr. ivss Mft. Mass.
Syrup Simp q. s. Pillulæ No. xii.

Give one every two hours. If hæmorrhage essential abates or suspends, once in four hours, generous diet. At P. M. saw her again, by request of her medical advis Hæmorrhage abating, free from headache; dined at 1 P. M on mutton-chop, with roast potatoes and a cup of good Moc coffee, and has felt better for it. Continue pills once in fo hours.

25th, 10 A. M.—Met Dr. T. agreeably to appointme She had scrupulously followed directions. Head clear, fr from pain; has rested well through the night, which she h not done for some weeks previously. To use her expressio she has been fidgetty, wakeful and restless these six wee past. Bowels moved naturally this morning; urine less

uantity, more color; hæmorrhage inconsiderable; pulse ghty-four, more full and soft; heart's action less easily xcited; less uneasiness in the maternal organs. Continue eatment and diet.

26th, 10 A. M.—Met again. The patient still farther improved; very little oozing of blood from os uteri. Expresses erself as feeling better than for two months. Continue pills ice in six hours. Still keeping her bed. Suggested to my edical friend that it might be a case of Placenta Prævia.

27th—Still improving; hæmorrhage entirely ceased; continue diet; recline most of the time for several days.

℞ Quinine Sulph. i ℈
Syrup Gum Arabic qs
M. Mass. Pillulae No. xx

Take one every eight hours. From this time her physician forms me, she progressed well, and took no more medicine ter exhausting the last prescription, and did not see her again ntil summoned to meet her medical attendant in consultation, ept. 25th, at 1 P. M., serious hæmorrhage having supervened, she thought, by lifting too much an hour previous. On rival, found her much as on May 24th, except the hæmorrhage as more active and she restless, with frequent sighings; nausea; no vomiting; pulse 110. Examination—Os uteri gid; nothing like dilatation; tender to the touch; blood ozing freely; some cutting pain and aching in maternal gans; extremities cold; apply warm, dry flannels to them.

℞ Tinct. Opii xxv gtts
Sp's. Camphor xx gtts
Sacch Saturni v grs
Aquae q s Hanstus.

Half-past two, slightly improved. Repeat draught. Four clock, repeat draught. Six, has slept quietly fifty minutes; emorrhage greatly abated; wishes food, and partakes of oiled steak and a cup of well dressed coffee, and enjoys em. Half-past eight, still better; repeat draught. Ten,

hæmorrhage slight; quiet; cutting pains absent; aching i maternal organs greatly relieved.

℞ Quinine Sulph. ii ℈
Gum Opii V grs
Syrup Gum Arabic qs
M. Mass. Pillulae No. xxv

To be taken one every five hours, commencing at 12 o'cloc M.; generous diet.

26th—Better; hæmorrhage suspended; improved in ever particular. Pills to be given once in eight hours, No. Continue diet and *rest absolute.*

27th—Convalescing. Suggest watchfulness as to hæmo rhage. Am confident it is a case of Placenta Prævia.

Oct. 20th—Called with my friend at 5 P. M. Examin tion—Some oozing of blood; os uteri rigid. Patie expresses herself, positively, that she thinks it was induc by walking more than usual, and slipping while walking. confident she has been better the last three weeks than at ar time for the last three months preceding. Her appearanc indicates all she expresses. Complains of some uneasine in the maternal organs; not much tenderness of os uter eats well; sleeps well; pulse eighty, nearly natural for fi ness and softness; nervousness slight; bowels in good stat urine, she thinks, is about as it is when she is in ordina good health.

℞ Tinct. Opii x gtts
Aqua q s Haustus.

Repeat once in two hours, until hæmorrhage is arreste Recumbent posture; quiet.

21st—Better; hæmorrhage entirely ceased; expresses he self as feeling as well as she did three days before she slippe Suspend medicaments; continue reclining two or three day

Nov. 22nd—At special request of my excellent friend, w summoned with him at 3 A. M. Examination, on arriv elicited the fact that the external organs were relaxing; t os uteri was not dilated. There were irregular premonito

pains. Says she feels well; is in good spirits. Her attending physician says he never saw her look better when labor was near. About five o'clock she had a smart labor pain. Examination disclosed the os relaxing and dilating some hæmorrhage; the edge of the placenta loose, presenting. The finger, passing by the loosened edge, came in contact with the membranes unbroken. From this time labor pains steadily increased, and the os relaxing till near seven o'clock, when a brisk pain was attended with a rapid flow of blood. Membranes yet unruptured; the placenta attached towards the right acetabulum of the mother rather anteriorly; blood continuing to flow. Suggested the immediate detaching of the placenta in its entirety, which was accomplished with some difficulty, by the index finger of the right hand; the membranes giving way at the same time, and the head advancing in the first natural position of Dewees. In less than five minutes the placenta was expelled, almost instantly being followed by a female child, weighing six and a half pounds. It moved a little spasmodically at first, gasping occasionally. Soon, by dashing small quantities of cold water in its face and on its chest, and using artificial aspiration by application of mouth to mouth, thus inflating, and then, with the hands, compressing the chest, respiration was fully established, and is now, 1861, a fine healthy girl. Very little blood was lost after the final separation of the placenta from uterus. The mother made an excellent recovery, and has since given birth to one son and three daughters, without complication.

Case 4th—Was called to Mrs. F——, May 22nd, 1856, whose history to that time is briefly this: Complexion, a brunette; married at eighteen years; has uniformly enjoyed good health to May 16th, and is enceinte for the fourth time. The first birth, thirteen months after marriage; the others at intervals of two years; the youngest now a little more than two years old. May 16th, 1856, she fell, injuring her back. Thinks herself about two months advanced in pregnancy.

Has uterine hæmorrhage, which commenced three days since. Reports having had something like her catamenia a month ago, much less in quantity and of a brighter color than natural; at the same time had the symptoms which invariably attend her during the first months of this state. Examination—Os uteri closed, more full and round than it is generally at the second month, perhaps fairly increased by one-fifth from normal condition; blood oozing from os uteri. Sensation through the loins, thighs and lower extremities, like those she is accustomed to at the month; bowels well opened; urine small in quantity; pulse eighty, a little full and tense; face slightly flushed. Diagnosed a case of Placenta Prævia. Venesection six ounces. Spts. Nit Dulcis thirty drops, once in two hours; absolute rest in recumbent posture, hard bed, care and quiet strictly enjoined; diet toast and black tea, the latter cool.

23rd—Hæmorrhage suspended. Expresses herself as feeling better decidedly every way. Enjoin rest and quiet with moderate diet for a few days, with injunction to notify me at the earliest possible moment if hæmorrhage returned, which directions were carefully observed.

June 21st, 10 o'clock A. M.—Called again. Patient has been well as usual since May 24th. At nine o'clock, when in the act of rising from her chair and walking across the room, hæmorrhage commenced more brisk than before. She reclined immediately, and sent a messenger to make this announcement. On arrival, instituted an examination.—Found more fullness than is common at this period of pregnancy of the os and cervix uteri; no dilatation; the oozing more brisk than a month ago; has some of the feelings attending the catamenial discharge, with sharp, cutting pains; pulse seventy, natural as to force and fulness. Continue rest in recumbent posture, light diet.

℞ Gum Opii ii grs
Sacch Saturni vi grs
Syrup Simp q s M.

Pillulae No. viii are to be taken every two hours till pains suspend; xx drops Spts. Nit. Dul. in water procenata.

22nd—Better; hæmorrhage and pain suspended about 5 P. M. Thinks she lost one and a half pints to one quart of blood, which was probably not far from the truth. Gave the same general directions and instructions as before.

Dec. 22nd—Was summoned at 9 o'clock P. M. Intimations of approaching labor by slight cutting pains; external parts relaxing, moist; no dilatation of the os uteri; no distinct labor pain. Seated by the bed-side of the patient, she reclining on her back, at 10 P. M., with the above condition, presenting in two minutes an intense pain, accompanied by copious flooding, announced labor rapidly progressing. Os uteri very dilutable; placenta presenting, entirely occluding the os membranes, not approachable by reason of it; liquor amuni not evacuated. Proceeded at once to detach the placenta fully. Within four minutes from the first pain, a most vigorous one came, during which the entire placenta was delivered, also a part of the waters discharged, and the head of the child was brought low down in a natural position. A third promptly followed, which completely delivered a small female child (weight five pounds) and the residue of the liquor amnii. The hæmorrhage ceased with the separation of the placenta. The child was pale—apparently dead. By persevering efforts of the usual means of resuscitation, in nine minutes it gave a spasmodic twitch of the left leg; in ten, a gasp; these were repeated, and in fifteen minutes respiration was fully established. The child was feeble and anæmic the first two years, and grew very little. Since then, had grown pretty well; is now, 1861, rather small for her years and robust. The mother made a good recovery, though somewhat enfeebled by the flooding, and has since given birth to a son without complication.

Case 5th—Dec. 29th, 1860, was called at 5 P. M., to C——
——t, German, married; a stranger to me. Is apparently very stout, healthy, well developed woman. Her fourth

pregnancy. Says she has not felt right any of the time (this is her expression) low down in her belly, and you will find I am not right, Dr. Examination—Parts relaxing well; capacious, above the average; os uteri not dilated. Labor progressed with rapidity. At five minutes before 6 P. M., found the os dilating rapidly, the peculiar feeling of the placenta communicated to the finger. Quick as thought came a most agonizing pain, attended by a great gush of blood. The placenta and liquor amnii following the latter in large quantity. Am confident there was no hæmorrhage of any amount subsequent to the expulsion of the placenta. The pain continued till a small male child was expelled. The woman made an excellent recovery. The child grew slowly for a time, but now, Oct., 1861, is fully an average for health and strength.

SELECTED.

PINA BIFIDA, TREATED BY IODINE—CURE BY ONE INJECTION.

By DANIEL BRAINARD, M.D.,
Professor of Surgery in Rush Medical College, etc.

November 7th, 1860, a girl three years old was brought to e to be treated for spina bifida. The child was intelligent, ealthy, and well formed in every respect excepting the mor situated over the sacrum. This was eight inches in rcumference at the base, about two and a half inches in ight, conical, translucent, elastic, and covered with healthy in excepting a small point at the lower part where it was scoloured like the vestige of a nævus. Below the tumor ere was an umbilicated depression like a cicatrix adhering the sacrum.

Operation.—Nov. 10th, 1860, assisted by Prof. Ephraim galls and Dr. Edwin Powell, the operation was performed follows: A small sized hydrocele trocar was carried into e tumour at its base on the right side, and six ounces of uid drawn off; while this was flowing, pressure was made an assistant, and as the sac was emptied, the pulp of the umb was pressed upon and partly into the opening in the ine which it exactly filled, so as to close it as perfectly as ssible. Half an ounce of a solution (five grains iodine, een grain iodide potass to the ounce distilled water) at the mperature of the body, was then injected through the nula and after a few seconds allowed to flow out; distilled ter at the temperature of the body was thrown in to wash t the iodine, and two ounces of the fluid first drawn from e sac and kept at the same temperature, were re-injected d the canula withdrawn. From movements of the child, me bubbles of air passed into the sac, and as these could t readily be brought out they were left.

During the operation the child was kept under the influence chloroform, of which it required a very unusual quantity, d, when this was finished, it remained fifteen minutes in a iet sleep.

The puncture was dressed with a strip of isinglass plaster and a compress supported by a band around the pelvis placed over it.

On awakening, the child made efforts to vomit and seemed to be severely nauseated for half an hour, when it fell into a light sleep. During the afternoon it vomited occasionally, refused food, asked for cold water, and urinated often.

11*th*. Has been restless during the night, probably from being kept lying on the face; pulse and heat of skin natural, puncture at eleven o'clock; twenty-four hours after the operation, found to be leaking; tumor tense; applied more perfect compression over it. During the day child drank freely of toast water, and in the afternoon fell into a free warm perspiration, which lasted two hours.

12*th*. Has slept well, asked for toasted bread twice, and ate it; seems perfectly well.

13*th*. Tumour tense, redness around the puncture; applied cloths dipped in warm water.

15*th*. Puncture leaking; passed a fine needle through the edges, tied a fine thread around it, in form of twisted suture.

17*th*. Tumour tense; tapped it on the left side near the base on sound skin with an exploring trocar, and drew off six ounces of slightly turbid fluid. Continued warm water applications.

19*th*. First puncture leaks slightly; needle withdrawn and compress supported by a truss placed over it.

20*th*. First puncture closed; child in its usual health; tumour flaccid, walls slightly firmer than before the operation. *Translucency quite gone*. Applied an India-rubber band around the pelvis so as to compress the sac.

25*th*. Tumour much diminished; walls firmer. Removed the band and substituted an umbilical truss, the pad of which was placed over the sac.

30*th*. Child in good health; tumour diminishing.

Dec. 3. Tumour but imperfectly fluctuating and evidently filled with semi-solid contents.

From this time to December 31st the truss was kept applied with compresses of fine linen within the centre, so as to press the skin into the opening in the spine. It was taken off and replaced daily, so as to avoid excoriation. The child suffered no pain, was in perfect health, and played about as before the operation.

31*st*. The skin at the centre of the tumour is adherent to the opening in the spine, which is felt to be closed. A little

lness around the base at the upper part alone marks the estige of the tumour. I advised the continued wearing of e truss unless it should excoriate, and the parents left r home.

Feb. 10. Child has remained well; no tendency to return the tumour. Truss has been left off for several weeks at a ne when the pressure produced restlessness.

The fluid first drawn from this tumour was perfectly limpid, d the peculiar odour of the cerebro-spinal fluid, was very ghtly albuminous.

With the microscope, only a few epithelial scales, and a ace of coagulated fibrin, could be detected. That drawn on e seventh day was turbid, and on cooling deposited a sedient composed of coagulated albumen and fibrin, with what peared to me to be pus-globules here and there. These, I was not mistaken in their character, must have come from e internal orifice of the puncture, which was still leaking.

Remarks.—This is the seventh case of spina bifida which I ve treated by iodine injections. In no case have I seen it oduce dangerous symptoms. It is the third unaccompanied hydrocephalus; all these three has been perfectly and permanently cured—one with thirteen injections, one with two, d the last with one. In the last two, means were taken to event the passage of the solution into the spinal canal. In e, the tumour being pediculated, this was easily done; in e other, the means above described were resorted to with isfactory results. When this can be effected, the solution y be used strong, and washed out so as to render one or o operations sufficient. The object of reinjecting some of e fluid in the case above reported, was to enable a hand und the pelvis to effects some pressure on the cord.

The operation is so delicate that it is not easy in any case fulfil all the requisite conditions. Thus, in the above case, e walls were so thin at the point of puncture, that it did not se for ten days, constituting a source of danger. Some bbles of air also passed in, too which too much consequence ed not be attached, as no harm resulted; but it would be ferable to avoid such an occurrence.

Applications of collodion for the cure of spina bifida have en recently suggested. When the walls are thick and firm is may be safe, and will be as serviceable as other forms of mpression. When the covering is thin, it is dangerous. Dr James Gow reported, in the *Chicago Medical Journal* for November, 1860, a case where it caused ulceration and

rupture. Prof. Gross reports, in the *North American Medico-Chirurgical Review* for November, 1860, a case of this malformation, treated by injection of iodine. "The tumour was thoroughly painted over with collodion." The tumour opened (not at the point of puncture) on the second day, and on the sixth it "burst completely." Although the covering is stated to have been "on the point of bursting" before the operation, it seems probable that the collodion hastened if it did not cause the rupture.

In another case by Prof. Gross (*ib.*), where about ten injections were used in eight weeks, the collodion was kept applied, and the tumour burst, causing death. Concerning this case, there are two points deserving notice:—

1. As there is no reason to suppose that the rupture was caused by the injections, it must be attributed to the collodion.

2. As the tumour was found on dissection to be "about one-third obliterated by coagulable lymph," the inquiry naturally suggests itself, whether one or two injections would not have been sufficient. A certain thickening of the walls has indicated to me that further injections were unnecessary, and the loss of translucency, or the turbid appearance of the fluid withdrawn are indications of a change in the structure and action of the lining membrane, sufficient, with judicious pressure, to effect a cure.

As these cases of Prof. Gross, taken without detail, are calculated to discourage the trial, it may be well to note that, although about ten injections were made so as to pass in some degree into the spinal canal, "the child early suffered from the convulsions after the operations, and they always readily yielded to a dose of caster oil."

I regard both the cases of Prof. Gross as tending to show the safety and efficiency of this method of treatment, as in both plastic lymph was deposited within the sac without any dangerous symptoms attributed to the operation having occurred.

The manner in which collodion acts in producing ulceration is threefold: 1. By vesication; 2. By expelling the blood from the thin walls; 3. By increasing the tension of the walls of the sac, which it does by diminishing its size.

CLINICAL LECTURE ON CEREBRAL SYMPTOMS INDEPENDENT OF CEREBRAL DISEASE.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN, JAN. 26, 1861.

By CHAS. WEST, M.D., Physician to the Hospital.

The first set of conditions in which I have observed anxiety excited among non-professional persons, and occasionally among medical practitioners also, is when marked impairment of the intellectual powers, or marked alteration in the disposition, follows on convalescence from some serious illness, such illness having usually been of a febrile character, and probably having been typhoid fever more frequently than any other disorder.

Now, with reference to all these cases, it must be borne in mind that the younger the child, and the humbler its acquirements before the attack, the more far reaching will be the apparent results of any such illness. The disorder that befell the child who had not yet learned to speak, will postpone the attempt for months. It will reduce the little prattler, who had used its newly-acquired powers for a few months, to silence for several weeks, while it will manifest its effects in the older child by taciturnity, apathy, and indifference to its ordinary pursuits.

These effects are far more striking in the child than in the adult, not only because a similar impression produces a far deeper influence on the more fragile than on the stronger being, but also because the processes of growth and development, complete in the adult, are still in progress in the child, and after their interruption by disease, provident Nature cares first for the essential—the repair of the body—and does not till afterwards expend her energies in restoring the vigour of the mind.

Moreover, I remember no instance in which typhoid fever, or any other disease of which cerebral disturbance has not constituted a main feature, has been followed by permanent enfeebling of the mind, or by the development of disease of the brain, save indirectly by the production of tuberculosis and the subsequent supervention of tubercular hydrocephalus. It is, then, towards this point that attention should be mainly

directed, and if the general nutrition is carried on well, no temporary dulling of the mind, no waywardness of the temper need make you falter in your assurance that time will set all right again.

At various epochs of development, symtoms not unfrequently appear which excite apprehension of cerebral disease, such symptoms consisting chiefly in altered disposition, in intellectual dullness, in irritable temper; but we shall, I think, usually interpret their meaning rightly by observing two things. They are moral and intellectual, much more than physical, in their nature, and they either coincide with, or follow, some definite stage of bodily development, such as the second dentition, or, in after age, the first efforts at pubescence, while, moreover, they are too variable, both in kind and degree, to tally with the indications of any definite organic disease of the brain itself.

Similar symptoms occur sometimes as the result of overtasking of the mental powers; and this not always by work excessive in itself, but excessive with reference to the then condition of the child, who may at one time be unequal to the amount of work which, a few months before, it was able easily to accomplish. The nature of the child's studies, too, sometimes overtasks its powers even more than the number of hours devoted to them, and, in such circumstances, the mere altering their nature, even though unaccompanied with any diminution in the time occupied by them, will often suffice to set matters completely right.

It is usually in connection with the development of the system which accompanies the second dentition that we meet with the severe neuralgic headaches of dyspeptic children. The history of such cases is usually something of the following kind: A child, whose general health has never been robust, whose nutrition is but imperfect, whose bowels are sluggish, and liver inactive, has occasional attacks of pain in the head; the pain is, for the most part, referred to the forehead, is attended with some intolerance of light, with sense of sickness, and, in some instances, with vomiting. It is usually very severe, so that the child seeks for perfect quiet, for a darkened room, and often asks to go to bed, where the attacks often subside after a short sleep, in the course of a few hours, though sometimesit it is not until after a night's rest that they pass away completely. On the day after an attack, however, the child seems in his usual health, though slight, over-excitement, over-fatigue, or mental effort will reproduce

the pain, as will any error in diet, or want of attention to the state of the bowels. Independently, too, of any exciting cause, the attacks are apt to come on spontaneously every fortnight or three weeks, and their frequent recurrence at length excites the apprehension of the relatives of the patient, who cannot believe but that such frequent returns of severe suffering must needs imply the existence of formidable disease.

It is not easy to say how long, in any instance, these symptoms may continue. They are obviously dependent on the state of the general health, with the improvement of which they diminish or altogether disappear. The period of their most common occurrence seems to point to some connection between them, and the general state of the system which accompanies the evolution of the teeth; but they do not seem dependent, as some convulsive affections of infancy and childhood appear to be on the local irritation of one or two teeth in particular, ceasing as they pierce the gum. If I were to seek for an analogy, I should find it rather in that condition of the general health which in the girl at puberty accompanies the difficult and tardy development of the menstrual function, and which improves when that process is complete, and the function fully and regularly established. In confirmation of this view, I may add, that while in the boy it is very unusual to observe this headache occur at the period of puberty, in the female sex the same kind of suffering not seldom recurs at that epoch, and sometimes, as we all know, continues in the woman even during the whole time of sexual activity, each recurring menstrual period being attended by intense headache, with much gastric disorder, though perhaps with little uterine pain, sometimes, indeed, with no pain at all referred to the sexual organs.

Pain in the head, accompanied with more or less intolerance of light, sickness, and constipation, are, as I scarcely need remind you, the symptoms that ordinarily usher in tubercular hydrocephalus; and though the knowledge of the public is inaccurate, they yet have a vague notion that such as these are the ordinary accompaniments of water on the brain, and they will come to you for a solution of their doubts, and a relief of their apprehensions. Now, I confess that, in many instances, the off-hand answer which is most desired is impossible; while, unluckily, there is no infallible criterion by which the caution suggested by wise observation can be distinguished from the hesitation of untaught inexperience.

Anyhow, it is worth while to have impressed on your mind the fact that the symptoms I have just enumerated do not *always* have so grave an import as commonly belongs to them, and that it is worth while to pause in every case before assigning to them their most untoward meaning.

These symptoms are for the most part observed a little later in life than the age at which tubercular hydrocephalus is most frequent, and they usually coincide with the progress of the second dentition. Further, although they are generally observed in children whose digestion has been liable to frequent disorder, and who are comparatively ill-nourished, the headaches are not preceded by that progressive loss of flesh or deterioration of the general health, which, in many cases, though confessedly by no means in all, precedes the development of acute hydrocephalus. Moreover, it will often be found that the headaches have continued to recur at intervals for weeks or months before the patient came under your notice, that yet no progressive deterioration has been taking place in the child's condition, that the headaches are not more intense, that no fresh symptom of cerebral disorder has supervened; but that such as they were months before, such they continue still. The attacks of headache themselves present some characters by which they may be distinguished from those whose import is more formidable. They are not attended with any remarkable increase of heat of head, nor with any marked pulsation of the carotids. The pulse, though quickened, is rarely unequal or irregular; the bowels, though constipated, answer comparatively readily to aperients; actual vomiting is unusual, and the nausea even rarely outlasts the seizure. Stimulants, too, not unfrequently relieve the pain, instead of aggravating it, and though excitement or over fatigue may have brought on the attack, yet a tale that interests or arouses the child, or any occurrence which brings to it much pleasure, often dissipates the pain completely; while, moreover, the spirits in the intervals become as buoyant as ever, and continue so until the next attack, a marked contrast to the anxiety and depression which often precede for weeks or months the onset of the acute stage of tubercular hydrocephalus.

Pure neuralgia, like the neuralgic headache of the adult, though less common than this sick headache, if so I may term it, is yet sufficiently frequent to need being borne in mind, when the question arises as to the import of symptoms supposed to indicate cerebral disease. The headache in these

cases is usually frontal, and care is therefore the more necessary, since there is no doubt but that continued frontal headache is a very frequent accompaniment of organic disease of the brain, and especially of tubercle of that organ. The severity of the pain, the suddenness of its onset, the completeness of its cessation, the fact that its recurrence for days is attended by no progressive deterioration in the patient's condition, all furnish a clue to its real nature. Moreover its supervention after exposure to malaria, and a certain ill-marked periodicity in its return, are circumstances which will serve in many instances, no less than the absence of other signs of disease of the brain to guard against, too hasty, or too positive an expression of an unfavorable prognosis.

There is besides another large class of cases, in which the occurrence, not merely of vague indications of cerebral disorder, but of violent convulsive attacks, excites alarm, proportionate rather to the formidable nature of the symptoms, than to the importance of the cause on which they really depend.

One of the most remarkable instances of this class which I have ever met with, was furnished by a little girl, 6½ years old, who suffered much from ascarides, on account of which she came under my care on September 16, some years ago. She had benefited somewhat by aperient and other treatment, when on the evening of October 7 she complained of pain in the chest; and at eleven in the evening, having then been some hours in bed, she was seized with a fit, which did not entirely cease till two o'clock the next morning, when she fell asleep, and awoke apparently well about seven o'clock. At nine a second fit occurred, which lasted till eleven; and from that time till the afternoon of the eleventh, fits continued to recur, having at no time a longer interval between them than six hours.

The fits were not quite like ordinary epilepsy; they began with slight rolling of the eyes, and twitching of the mouth, to which succeeded very rapid movements of the throat as it in efforts at deglutition, and these movements became soon accompanied by a sound somewhat between that of a sob and a hiccough, and not unlike the sob of a hysterical patient. During this time the pupils became dilated, the pulse feeble, and the child partially insensible, but she never became absolutely so, and complete consciousness returned long before spasmodic movements ceased, or the convulsive sound in the throat subsided; the child, when asked if she was in pain,

pointing to her throat. Very active purgation, during which a large quantity of ascarides was expelled, was followed by the cessation of the convulsive attacks; but for nearly thirty-six hours afterwards, the child complained of pain in the throat, and swallowed difficultly and with a sort of convulsive effort.

Now, how formidable soever the symptoms of disorders of the nervous system may be, it is a rule, subject, I think, to a very few exceptions, that the more anomalous such symptoms are, the greater is the probability of their depending not on grave organic disease, but on some excentric and generally removable source of irritation. In infancy we are so aware of this fact, that when convulsions occur, our first impulse always is to seek in some excentric disturbance for their occasion. I think, however, that we are too apt to forget that this peculiar susceptibility continues, to a great degree, through all the years of childhood.

In the case just related, the presence of a large quantity of ascarides produced a succession of violent convulsions, which ceased permanently on their complete expulsion. Sometimes, however, the irritation occasioned by the existence of worms in the intestines has more of an intermittent character coinciding with the movements of the parasite, and subsiding for a time on the expulsion of a lumbricus, or the returning quiescence of the tape-worm.

A little boy, 7½ years old, nervous, excitable, ill-managed, and liable to night-terrors, woke at four one morning, crying; the cries were soon succeeded by an attack of convulsions, which differed from an ordinary epileptic seizure, it being attended by a less profound degree of insensibility than ordinarily accompanies it. For a few weeks the child continued peculiarly excitable, wayward, and fretful, two more convulsions then occurred, soon after the last of which he voided a large lumbricus. This occurrence was followed by a marked improvement, which lasted for a few weeks. The old symptoms then returned, followed by another convulsion, and then another lumbricus was expelled, once more with an amelioration of the symptoms, and a second cessation of the fits. Whether the improvement was permanent, or whether the former symptoms returned, I cannot say, as I lost sight of the patient, but enough has been told of the child's history, to show the connection between the intestinal irritation produced by the worms, and the violent disturbance of the nervous system.

Though I have given these illustrations of nervous symptoms dependent on the presence of worms, and it would not be difficult to add to their number, it is yet not out of place to caution you against assuming the presence of worms merely because such an assumption furnishes you with the readiest clue to the meaning of certain symptoms of cerebral disorder which you do not find it easy at once to account for. I have seen the early stages of acute hydrocephalus referred to worms, just as I have seen the indisposition which ushered in typhus fever referred to them, without the slightest evidence of their existence, but of mere mental indolence on the part of the practitioner which indisposed him from careful observation or thoughtful consideration, and led him to take up with the hypothesis which served most readily to relieve him from the task of watching and reflection.

When symptoms of cerebral disorder depend on the presence of worms, there has almost always been ample evidence of their existence before the nervous system became gravely disturbed by them. In the few exceptions to this rule it may be asserted almost positively that their appearance will follow nearly at once on the cerebral disorder which awakens our anxiety and the alarm of the patient's friends. Moreover, the observation I have just made as to the influence which the anomalous character of symptoms fairly suggests, may be borne in mind in all doubtful cases with much advantage; and the question deliberately propounded to yourselves, "Of what definite disorder of the brain or nervous system are these symptoms; or in what respects are they anomalous and discrepant?" will often save you from many grave errors and many useless regrets.

We are all so familiar with the occurrence of convulsions during the first dentition, that in infancy the risk is rather of the grave disease to which they are possibly due being overlooked, than of the influence of teething in their production being underrated. On the other hand, the occasional share of the second dentition in exciting epileptic or other convulsive seizures is too little borne in mind, and a graver prognosis than the event justifies is sometimes expressed in consequence.

In a little work on Dentition,* published some years ago by my friend and former colleague, Dr. Ashburner, there are many cases related illustrative of this fact. Of these, I will select the following:

* On Dentition, etc. 12mo. London, 1834, p. 97.

"A boy, twelve years of age, was cutting the second or posterior permanent molars of the upper jaw before those of the lower, and the process was accompanied by twitchings of various parts of the body. At last he became affected with chorea. Being a very nervous lad, if any notice were taken of him, he would quite involuntarily make the most extraordinary faces, and contort his body into various attitudes that appeared to be most difficult and painful. This chorea continued for three months, during which time a variety of medicines were swallowed. At last he fell into an epileptic fit, struggling much, foaming at the mouth, and grinding the teeth. I thrust my fore-finger along the inside of his cheek, and found a hard, cartilaginous space on each side, behind his first molar tooth. I succeeded in gashing these parts. He uttered a scream and fell out of his fit, becoming quite sensible, nor had he a recurrence of his chorea."

So sudden and complete a cessation of symptoms on the removal of the mechanical irritation produced by the pressure of a tooth is decidedly an unusual occurrence. In by far the greater number of instances, the symptoms of disorder in the nervous system do not admit of being cut short thus suddenly and decisively; they depend not simply on the local irritation produced by one particular tooth, but, like the headachs which I spoke of at the commencement of this lecture, they are the result of the disturbance of the nervous system, to which the whole process of development has given rise, just as, in later life, the hysteria of the young woman is connected with the imperfect accomplishment of sexual function, and is not removed by a single occurrence of menstruation.

If this class of cases may be referred the history of a boy between eleven and twelve years old, whom I saw some years ago. While, apparently, in good health he was atacked by a fit one morning, in which his head was drawn to the right side. His face was distorted, especially his right side, and his right arm was in much more violent movement than his left. This fit was not preceded nor followed by sleepiness or headache, nor was it attended by any loss of consciousness, and the same characters were observed in all his subsequent seizures except one, which—the third in order of occurrence —was followed by temporary delirium for five or ten minutes. With the exception of the first and third of these attacks, all the others ceased in a minute, and the instant the spasmodic movements subsided, the boy resumed his former occupation, as if nothing had happened. Only once did more than one

seizure take place in the course of twenty-four hours; but the intervals between two attacks were very irregular; sometimes eight days had passed without an attack, while, at other times, they recurred daily for three days; and, altogether, between the beginning of July and the end of December, more than fifty occurred, with no alteration of their character or increase in their severity, while neither the boys' health nor his intellect appeared to have suffered in any respect from the affection. One point observed with reference to them—which, I may add, is often noticed in cases of epilepsy—was, that they almost invariably happened soon after rising in the morning, generally between the hours of seven and nine o'clock.

At first, he was actively purged, but with no effect; he then took the valerianate of zinc likewise fruitlessly; and then, as he was cutting the second molar tooth in the right side of the upper jaw, and as there was much tenderness of the gum over it, the gum was freely lanced, and all treatment was suspended. No amendment followed this measure, and the boy was, therefore, put for a time on the nitrate of silver, but with no results.

The idea which had been entertained of the possible connection of the attacks with the process of dentition appeared to me still to be the most probable, and for the following reasons: That, in spite of the continuance of the attacks, there had been no such deterioration in the boy's condition as might have been expected if they had been dependent on cerebral disease; that no impairment of powers over the affected side had followed the attacks, while such an occurrence would have inevitably occurred if the attacks had been dependent on tumour or tubercle in the brain; that headache was completely absent, and all the general functions were perfectly well performed; while, further, the anomalous character of the attacks themselves seemed still further to point to some excentric source of irritation.

On looking into the boy's mouth, the teeth in the upper jaw were observed to be very crowded and overlapping each other; the first molar on the left side was decayed, the second molar was still beneath the gum. I advised the extraction of the decayed tooth, and lancing the gum over the second molar, while all medical treatment besides should be discontinued. Before these measures were adopted, the boy had six consecutive attacks in the course of one day; two of them being very severe, and attended like ordinary epilepsy, with loss of consciousness. The extraction of the decayed tooth was followed by immediate diminution in the convulsive attacks, both in point of

frequency and severity, and the improvement lasted for nearly two months. The second molar tooth was then partly through the gum, when a succession of seizures, some of them accompanied by loss of consciousness, once more took place. Free lancing of the gum was succeeded, as before, by immediate improvement, and not only so, but the tooth being now quite through the gum, all spasmodic movements of the arm ceased, and occasional slight twitchings of the face were the only relics of symptoms which had seemed so formidable.

One caution, which this case suggests, I cannot forbear to offer, although it is not immediately connected with the subject of this lecture. It relates to the possibility of attacks of this nature, and still more of those of a more decidedly epileptic character, becoming permanent as the mere result of frequent recurrence, and this quite independently of the existence of any organic mischief in the brain. Thus, I have seen instances in which the convulsions that originated in whooping cough, have outlasted the disease that occasioned them, and the fits which at first were due to some error in diet, reproduced again and again by similar though perhaps smaller indiscretions in the same respects, until they became at length habitual. Each fit, too, leaves the child more predisposed to its occurrence, and from slighter and still slighter causes; so that never is the old Latin adage, *Obsta principiis*, more important than in the case of the convulsive diseases of early life.

In the majorisy of cases of chorea no diagnostic difficulty arises; the irregular movements of the limbs, the strange grimaces and gesticulations, sufficiently characterize the disease. Now and then, however, though the movements of the limbs are very slight, or partial, the speech is much affected, and the child, partly, perhaps, in consequence of the difficulty in communicating its ideas, becomes dull, low-spirited, and apparently sullen, and apprehensions are thus excited lest these unusual symptoms should betoken disease of the brain.

A boy, aged 8½ years, whose health had always been delicate, though he had suffered from no special illness, seemed feebler than usual when he returned from school for his Christmas holidays, and his mother's anxiety was excited all the more with reference to his indisposition from the circumstance that his father had died of consumption. In the course of a fortnight from his return home, it was noticed that power over his right hand was much impaired, and three days after, power over his right leg failed also, and his speech became at

the same time much affected. The speech grew rapidly more and more unintelligible, the boy stumbled when walking, and occasionally fell, and there were slight twitchings of the muscles of the right arm and leg, though these were at no time remarkable, and the face was never distorted. With the progress of these symptoms, too, the boy, never very quick, had become peculiarly dull and apathetic, so that it was not to be wondered at if the attention of his friends became fixed on those symptoms which were of the gravest import, and were apprehensive lest they should betoken disease of the brain.

Close inquiry, however, elicited facts that seemed to warrant the more hopeful view which the event of the case fully justified. There was no complaint of headache, there had been no sickness; the pulse, though feeble, was not all irregular; the tongue was protruded straight; the pupils were equally dilated, and equally susceptible to the influence of light; the movements, which ceased completely during sleep, were unaccompanied by any rigidity or contraction of the muscles of the affected limbs, and close observation discovered that though extremely slight on the left side, the irregular movements did affect both sides of the body. In a week or two more the affection of the left side became quite as marked as that of the right, deglutition, too, as well as speech, became affected, and the anomalous symptoms merged into those characteristic of an ordinary attak of somewhat severe chorea, from which under general tonic treatment the boy recovered, the brightening of his mind preceding, as I have seen it do in other instances, the amendment of the purely choreic symptoms.

I have seen, two or three times, a peculiar spasmodic affection in children which, though I believe it to be of no serious moment, yet has attracted attention, and excited anxiety by its singularity. It consists in the extremely frequent occurrence of involuntary sighing respiration: the child, who seems otherwise in tolerable health, and who follows his usual occupations and amusements, though listlessly and languidly, fetching a deep sigh almost every second or third inspiration, with a most painful and depressing monotony. All day long the sighing continues, ceasing, indeed, at night when sleep is undisturbed, but beginning again in the morning. No external condition appears to check, or indeed much to modify it; it is usually worse when the child has been long without food, but eating does not put a stop to it, and the child sighs, as if most woe-begone, between each few mouthfuls that he

takes. Once I saw the sighing followed by a causeless attack of difficult breathing similar to the nervous dyspnœa of a hysterical patient, but usually from beginning to end the sighing continues the only symptom of illness. The attack comes on gradually, and subsides in the same manner. In the instances which I have seen, however, it did not continue for much above ten days with such distinctness as to force itself upon observation, but abated by degrees under the employment of mild tonics, and of attention to the digestion, which usually is more or less disordered.

I have never seen it associated with other symptoms pointing to disorder of the brain, nor have I known it issue in any graver ailment, but its singularity has excited fears which perhaps this mention of it may serve to allay.

I must not close this lecture without some reference to a very important class of cases, to which, indeed, I hope on a future occasion to call your special attention, where the loss of power over some of the muscles raises the suspicion that the brain is the seat of serious disease. In the adult, we are familiar with the occasional occurrence of partial paralysis, especially of fascial palsy, independently of cerebral disease. We can therefore the more readily understand how a similar occurrence may take place in the more sensitive and delicate frame of the child without any abiding disease of the nervous centres. Those slow processes of disorganization which affecting the brain, in the adult produce palsy, sometimes o one part, sometimes of another, so that we look on the im paired power of movement as the attendant commonly o some grave disease, and the harbinger of its fatal issue, are o extreme rarity in the child. Tumors, almost invariabl tuberculous, within the brain, or disease of the spinal colum extending from without inwards, until by its advance the cor itself becomes implicated, are almost the only conditions i which paralysis in childhood depends upon mischief seated i the nervous centres. In the young, the loss of power indeed uncertain in its issue, as far as the complete recover of the patient is concerned; it is grievous in its results, for often leads to permanent deformity; but it is very rarely th it need excite apprehension with reference to life, or healt or intellectual power. In the grown person, the import paralysis is commonly of the gravest kind, subject, indeed, exceptions, of which fascial paralysis furnishes the most fr quent illustration. We are bound, indeed, to scrutinize ea case most carefully; but in the grown person, our inqui

commonly resembles that which the Judge puts to the condemned criminal when he asks him whether he has anything to say why sentence of death should not be passed upon him. In the child, care, too, is needed not to overlook some peculiarity in the case which may attack to the loss of power a worse than is wonted to significance; but yet you will do well to remember that life is very rarely threatened by paralysis in early life; that organic disease is the rare exception, not the ordinary occurrence. It will save you much useless anxiety, and your patient's friends much needless sorrow.

Medical News.

NEW ANÆSTHETICS—THEORY OF THEIR ACTION.

By CHARLES T. JACKSON, M.D.

Substitutes for ether, as anæsthetic agents, are frequently proposed, and some of them have been practically introduced, with some success. None, however, surpass ether in the two most important qualities of efficiency and safety, and there can be no doubt that with respect to safety, ether is far preferable to any and all anæsthetics thus far discovered.

It may prove interesting to the profession, to inquire into the mode of action of the class of bodies known to produce anæsthesia, when inhaled. This subject has been very carefully studied by me from the outset of anæsthetic practice, and with a view to the discovery of some general law.

The first impression among physicians was that the anæsthetic state was merely one of temporary intoxication.

Secondly, the theory of high excitement, followed by corresponding collapse, accounted for the phenomena. Dr. Jno. C. Warren took, at one time, this view of the matter, and spoke of etherization as "devouring the sensibility by high stimulation, and hence a corresponding nervous depression," which was the anæsthetic state. Others have supposed that etherization produced a partial asphyxia; hence the expression early made use of by some of our surgeons, that there was "little difference between hanging, drowning and ethering."

It has also been alleged that ether absorbed into the sanguineous circulation affects directly the nervous filaments,

either at their origin in the medulla spinalis, or in their distributed extremities, or in both these parts. In support of this allegation, it was cited that the direct application of ether to an exposed nerve *destroyed* its sensibility. By the italization of that word, I call attention to the difference between the anæsthetic state of temporary suspension of sensibility, and the destruction of it; for the nerve acted upon directly by ether, does not recover its powers, but is permanently paralyzed.

Another state of the circulation has been observed, which it is hoped would give some clue to the action of anæsthetic agents, namely, that of slackening, and even temporarily wholly suspending the circulation of blood in the capillary or extreme vessels. It was supposed that by thus cutting off a supply of circulating blood stimulus to the sentient extremities of the nerves, sensation was temporarily suspended. The commencement of insensibility in the remote extremities, the feet, legs and hands, seems to indicate that sensation was suspended at those points first.

The French physiologists, Flourens and Longet, are o opinion that the effects of anæsthetics commence, and prima rily act on the great nervous centers, the medulla spinalis an medulla oblongata; and that if the full effect reaches th bulb of the medulla, death will take place from total suspen sion of all the vitat functions of the body.

A more chemical explanation of the action of anæsthetic is that they all abstract oxygen from the blood, and henc reduce its peculiar stimulating powers on the nerves, and th some of them leave poisonous products, while those left b others are innocuous. Thus, as we have formerly state chloroform or the ter-chloride of formyl abstracts three equi alents of oxygen from the blood, but, at the same tim unfortunately it deposits, in exchange for the oxygen, thr equivalents of chlorine.

Bi-sulphide of carbon, one of the most terrible anæsthet ever proposed, the dangerous effects of which I have expe enced, and have warned the public about seasonably, acts a powerful de oxidizer of the blood, both the carbon and t sulphur abstracting oxygen, the first producing carbonic ox or carbonic acid, while the latter forms sulphurous acid. C bonic oxide and sulphurous acid are poisons, as is also cl rine, before mentioned.

All the acidiferous ethers when decomposed, as they are a the organs of respiration and circulation, leave their acids n

combination with the blood; hence, nitrous and nitric ether are known to destroy life, and hydro-chloric ether and chloride of hydro-carbon undoubtedly act in the same way, and injure the quality of the blood. Acetic ether is not objectionable, since an organic acid is easily decomposed in the processes of respiration, and is removed in the form of carbonic acid and vapor of water, usual products of normal respiration.

Sulphuric ether, as it is improperly called, since its does not contain any sulphuric acid, is a pure hydro-carbon, with one equivalent of oxygen=C_4 H_5 O. When decomposed by the action of the blood, it may be converted into aldehyde, acetic acid, and lastly into carbonic acid and water, no fixed product remaining in the blood, but all able to be removed by respiratory action. The odor of the breath of a patient who has been etherized, shows that there are exhaled the oxidized products of the ether, and it is known by analysis that a much larger proportion of carbonic acid is exhaled from the lungs during the etherized state, than in the normal condition of the system.

Without finally adopting any theory of the chemical and physiological action of anæsthetics generally, we may, perhaps, be allowed to call attention to a general law, namely, that all very volatile hydro-carbons act as anæsthetics like the others. Thus, it has long been known that benzine, benzole, oil of turpentine, naptha, when inhaled, will all produce the anæsthetic state. The highly volatile oils of coal tar, likewise, possess anæsthetic properties, and one which has recently been tested in surgical practice, known as keroselene, a highly volatile naphtha, seems to be the least offensive of them. It is evidently a very pure hydro-carbon, analogous to highly rectified naptha, and does not contain any oxygen, as is proved by its property of preserving potassium from oxidation, when it is immersed in it. The first samples of keroselene which I tested, two years ago, proved quite irritating to the organs of respiration, but I have learned recently that a purer and more volatile product has been made at Mr. Downer's works, though I have had no opportunity of testing it practically.

It is obvious that there are two or more volatile oils in the keroselene of commerce, and they are separable by graduated distillation. Some care, therefore, is requisite in the preparation of an uniform product; one which may be properly the subject of experiments by inhalation. I would observe that no analysis has yet been made of the keroselene oils.—*Boston Medical and Surgical Journal.*

NEW SURGICAL PRINCIPLES.

Prof. E. S. Cooper advances and urges discussion of the following surgical principles:

1st. That atmosphere, admitted into the joints or other tissues, is not a source of irritation or injury, except where it acts mechanically; as, when admitted into a vein, by producing asphyxia; into the thoracic cavity, by its pressure producing collapsing of the lungs, or when, by the long-continued exposure of a large amount of surface of any of the internal organs, whose normal temperature is much above that of the atmosphere, it reduces it so as to produce a morbid action.

2d. That the division of entire ligaments about the joints is no impediment to their ultimate strength and mobility; but, on the other hand, this operation will often greatly facilitate the cure, by enabling the surgeon to open the affected part fully, for the purpose of applying medicinal substances to the articular surfaces, when these are ulcerated or otherwise diseased.

3d. That the only true mode of treating ulcerations of bone, however slight, within the joint, is to lay it open freely, and apply remedial agents directly to the part affected.

4th. That opening the joints early, in case of matter burrowing in them, is far more imperiously demanded than the opening of other parts thus affected, and the operation produces no further pain or inconvenience to the patient, in any respect, than when performed on parts remote from the joints.

5th. That after opening a large joint, the knee, for instance, by an incision several inches long, the wound should be kept open by the introduction of lint, or other similar substance, until the parts within the articulation become healthy, and, in all cases, it should be made to heal by granulation.

6th. That extensive wounds, opening freely the large joints, such as the knee, (even when lacerated, as by a saw, which must necessarily heal by granulation,) do not as often give rise to violent symptoms as very small wounds, such as are made by the corner of a hatchet, an adze, or a pen-knife, which heal on the outside by first intention.

7th. That there are no known limits beyond which a tendon will not or cannot be reproduced after division, provided the parts are made to heal by granulation, and that the present acknowledged rule of two inches being the maximum distance in which the divided ends of a ligament or tendon can safely be separated, has not the least foundation in fact.

NOTES ON THE NARCOTICS.

By EDWARD PARRISH, Lecturer on Pharmacy, *Philadelphia.*

An experienced medical practitioner, in a recent letter to his office student, in attendance on medical lectures, advises him to acquaint himself thoroughly, during his term of study, with affections of the nervous system, as upon a thorough knowledge of these, and their treatment, his success in practice would mainly depend.

That this advice accords with the prevailing ideas of physicians, is especially obvious to the pharmaceutist, who, in comparing the recent prescriptions, on his files, with those of twenty years ago, cannot fail to notice the increased use of medicines primarily affecting the nervous system, instead of mercurials, drastic cathartics, blisters, and the like, formerly so much relied on.

From an analytical table of prescriptions which I prepared some five years ago, from my own files and those of several pharmaceutical friends, it appeared, that on an average 24 per cent. of the prescriptions examined, contained either opium, morphia, or hyosciamus, in one or other of their preparations, while the mercurials of all kinds, of which blue pill is now by far the most popular, were directed in 23 per cent. of the prescriptions; iodine and iodide of potassium in only 6 per cent., and though the files were examined with reference to the different seasons of the year, cinchona, and its alkaloids, only appeared in 9 per cent. of those written in Philadelphia. The preponderence, here shown, would probably be greatly increased in case of the preparations of opium, if the medicines dispensed without prescriptions were taken into account. Laudanum and paregoric are found in almost every dwelling, at all provided with medicines, while the great variety of carminatives and infant cordials, given so indiscriminately and so injudiciously, nearly all contain opium as their most active ingredient.

In estimating the reliance placed by physicians upon narotics, by the data above given, allowance must be made for their extensive employment as correctives of the undue influence of agents primarily affecting the secretions. This is,

indeed, one of their chief uses in prescribing, and in the case of opium, especially is, perhaps, often resorted to from habit, rather than from any indication in the symptoms.

Next to opium hyosiamus is the most popular of the class of cerebral stimulants; its relaxing effect upon the bowels, secures its substitution for opium in very many instances; as an alterative, also, it shares with conium, belladonna, and stramontum, considerable reputation in appropriate combinations. The prophylactic effects of belladona, its asserted specific influence on certain eruptive diseases, and its well known usefulness is opthalmic surgery, give its extract and alkaloid, atropia, prominent positions in the class. Conium is not unfrequently prescribed with sarsaparilla and the mercurials, while stramonium is less in repute for internal use than in ointments applied to hæmorrhoids. Stramonium leaves are much employed for fumigation in asthmatic affections, a practice frequently productive of speedy relief, notwithstanding its alkaloid, daturia, is not volatile; that of conium being freely so its leaf might be supposed to furnish a much better material for the fabrication of asthmatic paper and segars. Another eligible mode of administering this class of remedies, especially those containing volatile principles, is by inhalation in connection with the vapor of water; the inconvenience of the method and the want of suitable apparatus have sometimes operated against a trial of its merits; there is no real difficulty, however, in adjusting a good inhaler, when not readily accessible, by the use of a wide-mouth bottle and glass tube.

Of all the narcotics, none has received so great an impulse, in our time, as Indian hemp. The incredible stories recorded by travelers in relation to the effects of *hashish* on the impressible natives of the East Indies, have given it a world-wide notoriety as an intoxicant, while the efforts of certain empirics, among us, who have advertised it extensively, under the plea of disinterested humanity, have drawn the attention of thousands, both in and out of the profession, to its availability in the treatment of phthisis. The extract of cannabis has, certainly, become one of the most popular, as it is one of the best of its class; its chief advantages are the exhilaration which accompanies, or rather precedes its complete narcotic effect, the remarkable control it exerts over nervous inquietude and the absence of any noxious effect, either in diminishing the appetite, checking the secretions or constipating the bowels. The quality of the preparation is so varied, that

physicians are often quite uncertain what dose to prescribe; some specimens seem nearly inert, while of others half a grain is a powerful dose, and a grain has produced alarming symptoms. It is always best for the physician to assure himself beforehand on this head. It should be of a bright green color, heavy narcotic odor, and entirely soluble in alcohol. Squire's London manufacture is esteemed the best. In prescribing extract of cannabis, in liquid form, the most approved combination is with carbonate of potassa, which renders the extract soluble in water, otherwise, dissolved in alcohol, it readily separates on being added to aqueous and even mucilaginous preparations. I have met with one case only in which extract of cannabis produced those extraordinary hallucinations to which I have referred as being ascribed to *hashish* in the East. This patient, a consumptive, was often possessed with an idea of his own duality, seeing horrid visions of detached portions of himself. He seemed to be continually haunted by the presence of an imperious director, on whose behalf his most trifling acts were performed. At times, even in the act of expectoration, he believed himself the agent of another for whose sufferings he felt the keenest sympathy.

The very extensive use made of lobelia and sanguinaria in this country, would, I think, surprise our transatlantic calaborers. The combination, in these remedies, of narcotic with emetic and diaphoretic properties, fits them for a great variety of indications, though they seem to me by no means so safe and harmless as some rather adventurous prescribers seem to suppose. A plant of the famous solanacæ family, to which belladonna, stramonium, and hyosciamus belong, yields us the alternative narcotic dulcamara, of which we have only two preparations in the Pharmacopœia—the decoction and aqueous extract, neither of them very eligible or apparently satisfactory to the profession.

One very prominent element in the popularity of a remedy is its pharmaceutical eligibility, and there is little doubt that the neglect into which many valuable drugs have fallen is due chiefly to their not being presented to the practitioner in an eligible shape. Since the general abandonment of the crude and inelegant class of infusions and decoctions, there has been a manifest tendency to employ more concentrated and reliable preparations; but the Pharmacopœia, never in advance of the demands of the profession, has given no formulas in the cases of many of the most valuable. That this may be partially remedied in the edition now under revision

by the eminently judicious and conservative committee appointed in Washington some eighteen months since, is greatly to be desired.

Fluid extracts are now loudly called for on all hands. That many of this class of liquid preparations originated, and have come into use through the commercial enterprise and activity of certain manufacturing pharmaceutists, not amenable to the careful scrutiny of the profession and the public, and whose processes are too uniform to be properly applicable to every drug, is no argument against the excellent scheme of concentrating liquid preparations to such point as that their dose shall have the same relation in each case to that of the drug from which derived. Modern pharmacy, with a full appreciation of the composition of almost every drug known to the profession, is now prepared to adapt solvents to each, which will fully extract its medicinal principles, discarding those which are inert, and, by processes of evaporation within the reach of every apothecary, to reduce these to concentrated and permanent forms. The alcohol is sometimes an objection in tinctures, from therapeutic incompatibility, while in syrups, which are always given in comparatively large doses, the sugar is equally objectionable. Fluid extracts, besides the advantage of correspondence of dose with that of the drug, contain a minimum of either of these antiseptic ingredients. They are, however, best adapted to drugs the doses of which are not very small, and I can see no advantage, for internal use, in more concentrated liquid preparations of the powerful narcotics than their tinctures already furnish, especially as the solid extracts are so easily incorporated with extemporaneous mixtures. The imported preserved juices are not recommended so much for greater concentration as for their careful preparation directly from the fresh expressed juice of the plant before it has been altered by any processes of drying and subsequent treatment with menstrua.

In this connection, it may not be out of place to notice some facts in regard to the preparations of opium, of especial advantage in those cases in which Laudanum is contraindicated by its nauseating effects and the disagreeable symptoms as its effects are passing off. McMunn's elixir has attained a place among the popular preparations of opium from the absence of these objectionable qualities, and the only obstacle to its use by physicians lies in its being a nostrum, the mode of preparation of which is carefully concealed. The prevailing opinion among pharmaceutists appears to be that this is an

aqueous preparation, to which, after its completion, a very little alcohol is added to prevent decomposition, and, on this principle, numerous elixirs of opium are offered, though, as might be expected, McMunn's still takes precedence. The aqueous extract is a preparation well worthy of a fair trial in competition with the drug itself, or its tinctures; on theoretical grounds, it gives promise of good results. I have met with practitioners who unhesitatingly give the preference to black drop and acetated tincture of opium, which they recommend as greatly preferable to the ordinary liquid preparation, while certain confirmed opium-drunkards give their testimony in the same direction, asserting that these preparations, containing morphia as acetate, produce less emaciation from their habitual use than those containing the natural salt, meconate of morphia. On the other hand, I have lately imported from London an elegant preparation called solution of bi-meconate of morphia, resembling McMunn's elixir, though still more completely deprived of odor, and apparently quite free from the usual objections to laudanum.

What is the dose of the morphia salts? One-eighth of a grain, say the older books and prescriptions; one-third of a grain, say recent authorities; one grain, say now a great many physicians, not only here but elsewhere. Formerly I hesitated to compound a prescription calling for this dose, now it is so frequently prescribed and administered, that we begin to regard it as safe, and cannot help setting down the fact as an offset to the asserted lessening of doses to meet the demand of the times.—*Med. Reporter.*

LECTURE ON DENTITION AND ITS DERANGEMENTS.

By A. JACOBI, M. D.,
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"*Anatomy and Physiology of Mucous Membrane in General—Nature of its Secretion—General Pathology of Mucous Membrane—General Etiology—Primary and Secondary Nature of Diseases—External Injuries—Cold—Atmospheric and Epidemic Influences—Constitutional Poisons—Contiguity and Sympathy—Different Forms and Symptoms.*

I have several times alluded to certain qualities and actions of the mucous membranes in general. But you will better understand many of the foregoing remarks, after following me in the investigation of several anatomical and physiological facts, concerning both the structure and function of the mucous membranes. And certainly, they are deserving of every attention that can be bestowed upon them, not only on account of the large surface they cover, but also in consequence of their physiological and pathological importance. As the cutis forms the external integument of the body, so does the mucous membranes form the internal covering of any and all the organs. Thus, we find them all over the respiratory, digestive, uropoietic, and sexual organs, and in all those isolated cavities, like the maxillary and frontal ones, which are connected with the larger ones by narrow ducts; further in the glands, the affections of which are either genuine and primary, or continuous only of a morbid process on a mucous membrane, and their ducts; the conjunctivæ, the external ear, and the galactiferous ducts of the female breast.

The mucous membrane of an organ or a system is not confined to certain limits. Except on the lips, on the external ear, and other localities where we distinctly perceive the gradual replacement of epidermis and cutis by mucous membrane of this organ or system finds its end, and that of the other commences. Thus, there is no boundary between the mucous membranes of the digestive and the respiratory organs, nor any between that of the stomach and duodenum. Their internal structure is alike, and therefore I deem it more proper henceforth to speak rather of mucous membrane, than of

mucous membranes. Its uniform layer consists of dense connective tissues, intermixed with blood-vessels and elastic fibres, in its deeper laminæ with muscular fibres also, and is covered with several layers of epithelial scales, which are readily thrown off and renewed; they may, however, be accumulated in yellowish, brownish, or black masses. Beside the blood-vessels there are lymphatic vessels, and the smallest ramifications of nerves, which are particularly found in the papillary prominences. They are either the last ends of a cerebral or spinal, or of the sympathetic nerve; the peculiar actions of these several nerves determining the functions of the locality in which they spread. The mucous membrane, influenced by the cerebro-spinal system, is more sensitive, as a general rule, than such localities in which the power of the sympathetic prevails. Thus, pain depends on the seat of the affection just as well as on its acuteness; the degrees of temperature are discerned by the pharynx, but not by the stomach or intestine; urine produces no pain whatever on the mucous membrane of the urinary bladder and urethra, but very much so on that of the conjunctivæ; and often irritations meeting a mucous membrane effect no pain or other local disturbance, but sympathetic sensations, like coughing or sneezing.

The functions of the mucous membrane are both various and important. It takes a prominent part in assimilation and sanguification, and therefore suffers in all general, and all those local diseases that in any way influence the general condition of the organism. They are frequently first affected in a large number of diseases, many of which are primary; for the immense extension of mucous membrane, increased by indentations, villi, glands and glandular ducts, and papilæ, is such that morbid processes may easily take place in one part or another. The influence of the diseased mucous membrane is, moreover, as great as its effects are frequent; the vital importance of the membrane itself, the legions of nerve ramifications in its tissue, and the contiguity and rapidly developed consecutive affections of the mucous membrane contributing to the same result. The occurrence of œdema of the glottis in catarrh of the pharynx or larynx, or of collateral œdema of the vocal cords in diphtheritic inflammation of the larynx, are distinct and much dreaded proofs of this fact.

In its normal condition, the mucous membrane exhibits a peculiar tough, whitish or clear, more or less transparent, alkaline secretion, called mucus. It contains mostly epithelial scales, more or less transformed, of every variety; pavement,

cylindrical, and vibrating, the latter without its cilia; further, round granulated cells with one or more nuclei, and a clear transparent liquid. Epithelium, mucus, and pus are found combined in many instances of secretion on the mucus membrane, the three various forms being, in this locality, but three different stages of the transforming epithelium. Under favorable circumstances, the mucous membrane forms puriform elements anywhere, but there is some difference in the process. The purulent mucus of the intestine contains very seldom puriform elements, that is, pus cells, except in cases of genuine ulceration; the same result is found on examination of the purulent mucus of the uterus and tubes. But no ulceration is required in the mucus membrane of the bladder or urethra to count immense numbers of pus cells in the puriform secretion of chronic vesicular catarrh and gonorrhœa. This difference depends on anatomical reasons. The intestine, uterus, and Fallopian tubes have cylindrical epithelium only, bladder and uretha, however, pavement epithelium. The mucus membrane will develop the more pus cells without the presence of real ulceration in proportion to the amount of pavement epithelium by which it is covered. Purulent though the secretion of other parts of the mucus membrane will look, it contains frequently nothing but cylindrical epithelium. The angular shape of the pavement epithelium enables it to form a cohering covering, which is not thrown off so easily as the round pus or mucous cells; thus the lower layers have full time to develop into mucous cells; which result being obtained, the whole mass is thrown off by either the pressure of the subjacent new layers, or the influence of the thin and less cohesive transudation from the blood-vessels, which, in its turn, forms another important element of the secretion. Whether it has a more important part than to be one of its elements, whether, for instance, from its substance cells may be developed, or whether the cells are under all circumstances but the later stages in the development of epithelial scales, is still an open question. This is certain, that what is called mucus is by no means always the same liquid, no more so than that the secretion of the external skin is alike on every locality of its surface. Its reaction is acid in the stomach, alkaline in the mouth and intestinal canal; a mucous substance is secreted from the parenchymatous substance of some organs, without the presence of cells; there are pathological liquids, as colloid, very similar to mucus; there is the substanc called after the name of Wharton, in the umbilical cord

of the fœtus and newly born, the cellular development of which cannot be traced; and nevertheless this "gelatinous connective tissue" is transformed into mucus. Thus, from an anatomical point of view, the secretion of the mucous membrane is not a uniform substance; neither is it uniform as to chemical composition. I have stated that its reaction differs according to localities. It frequently contains albumen, some little fatty substance, extractive matters, and some mineral elements, as chloride of alkalines and phosphates of earths. These mineral elements belong to the mucine, which is a nitrogenous, albuminous substance, swelling in water, but not dissolved by it, and to which the mucus owes its tough nature. Its chemical reaction differs according to its percentage of minerals, combination with other poisonous substances, or its own peculiar modifications. This difference is easily explained by the fact, that it is not performed in the blood and thrown on the surface, but is a production of the mucous membrane itself. Thus its constitution depends on the amount of follicles, epithelial scales, papillæ, and on the character of the epithelium; no matter whether it is formed directly from the epithelium undergoing its final changes, or from transudation through the walls of the capillary vessels.

In regard to the diseases of the mucous membrane, I have already stated both their frequency of occurrence and their proclivities for complication. Their tendency to sickness is, however, not uniform; individuality and age belonging to those influences which are most apt to modify the alterations taking place in their tissue or secretion. Affections of the mucous membrane are very rare in fœtal life, because of the absence of both mechanical injuries and functional disorders. In infantile age the mucous membrane reaches its greatest importance, new influences acting upon it and calling into life new functions, especially the normal state of injection, which is very considerable indeed. A very common alteration taking place in the mucous membrane is mollification; plastic exudation, hæmorrhage, suppuration, and ulceration being very rare in the first year of life. After this time exudation processes are more numerous, especially fibrinous exudations are not unfrequent. This predisposition of early age to contract diseases of the mucous membrane, is afterward decreasing, is not very common in advanced age, until in senile age it is rather increasing.

A number of diseases of the mucous membrane in early age are of a primary nature, and many of them result from

direct local injuries. It is a singular fact, however, that thorough and deep local injuries, cuts and wounds of any kind of the mucous membrane, dangerous though they look, are attended with very little danger in the majority of cases; they will generally heal readily and lose nothing of their merely local character. Thus foreign bodies entering the substance, combustion destroying the structure of the mucous membrane, although sometimes among the causes of a disease, will not so frequently give rise to a severe affection, as a less serious injury often repeated. Animal or vegetable parasites, and indigestible food, will therefore, as their influence extends over a longer period, although their sudden insult is often but inconsiderable, be among the most frequent diseases of the mucous membrane of the digestive organs. Another very important and frequent cause of diseases of the mucous membrane is refrigeration. We are entitled to state this as a fact, although we do not know whether cold acts by the suppression of cutaneous secretion alone, or by some influence on the peripheric cutaneous nerves and reflex action alone; or by both. It is, however, a fact that especially the mucous membrane of both the respiratory and digestive organs is very subject to the influence of cold, together with the other causes of disease depending on the general condition of the atmosphere, and the changes and general influences of season, of epidemics and endemics.

These latter are of great importance in the etiology of the affections of the mucous membrane in early age; for we know that not only malarious influences and animal effluvia will readily act on the impressible infantile organism, but the constitutional and contagious poisons are mostly observed to produce their peculiar forms of disease in infantile age. Thus children are the majority of patients suffering from eruptive fevers; scarlatina, measles, and diphtheria mostly attacking the infantile organism. And here it is important to state that a peculiar part of the mucous membrane has always a tendency to be affected by a peculiar constitutional poison, both in early and advanced age. Thus diphtheria, scarlatina, syphilis and mercurialism show a predilection for the mucous membrane of the mouth and pharynx, typhus for the ileum, dysentery for the colon, measles and iodism for conjunctivæ and nose. All such affections, although common to every age, are mostly found in the infantile period, the modes of propagation and transmission being eminently distinct at this period of life.

I have frequently alluded to many cases of secondary affections of the mucous membrane; they are the usual results of either local propagation in the continuity of tissue, or of sympathetic spreading. We know from general pathology that there is a direct connection between cutis and mucous membrane, scalp and nose, mamma and uterus, urethra and testicles, and stomach and brain; we need not be astonished then, that there is a contemporaneous affection sometimes of the mucous membrane of the nose and the lungs, the larynx and trachea being free from disease; or of the stomach and colon, the small intestines being not at all affected. And the spreading of affections of the mucous membrane on continuous tissue is so very general, that labular pneumonia, for instance, is in all cases recognized as the termination of a catarrh of the bronchi; and a protracted catarrh of the colon with ulceration of the follicles is known to be a usual consequence of catarrh of the small intestines. Nor is the topical propagation of affections of the cutis over the adjoining mucous membrane an exception, but the rule. The transmission of diphtheritic and other processes of the external integuments of the lips, anus, and pudenda majora, on the mouth, rectum, and vaginia, are frequently observed.

Thus it appears that nothing is more natural than a universal or wide-spreading hyperæmia, changes in both quantity and quality of secretions, rupture of blood-vessels, and even neoplasms. The alterations observed in the secretions are frequently more important in relation to post-mortem epicrises, than the anatomical change of the tissue itself; for you have learned already, from a previous lecture, that not unfrequently no anatomical trace is detected in patients who have died from, or with, hyperæmia of the brain, pharynx, intestines, or cutis. The abnormal secretions are therefore as important elements in regard to the results of post-mortem examination, as they again are ready causes of renewed attacks, from the local irritation depending on their presence on the membrane. The prognosis, therefore, depends greatly on their nature and amount, and frequently as much on them as on the structure of the membrane, its epithelium, follicles, or papillæ. To a great extent they also influence the symptoms, among which functional disorders and anomalous secretions are always prominent. Pain is sometimes observed, but it is frequently indistinct and obscure. Of more importance than the latter, however, are some indirect symptoms, of which reflected motions, and even muscular paralysis, are

frequently met with. Thus, sneezing, coughing, vomiting, and tenesmus are brought on. Disorders in neighboring or distant parts are effected by the suppression of secretion and injection of the tissues; topical spreading on the subjacent submucous tissue, as in œdema of the glottis, and retro-pharyngeal abscess; and participation of the whole system.

After these general remarks you are enabled to trace a direct connection between even the slightest causes and severe affections. I have taken particular pains, in former lectures, to present for your inspection a number of affections which, severe though they be, owe their origin frequently to a comparatively insignificant cause. The greatest stress has been laid by me, further, on the large number of slight or unimportant causes giving rise to affections of the mucous membrane. That in some cases an abnormal process of dentition will prove a source of evil, I do not deny; but from many previous remarks, and from comparison with other causes of diseases, you have arrived at the conclusion that the vast majority of diseases of the mucous membrane allow of another explanation than the blind assumption of the culpability of a physiological process. The great progress of pathalogical anatomy and differential diagnosis ought not to be lost on us. The period, where the diseases of small children consisted in dentition, of advanced ones in worms and scrofula, of adults in rheumatism, scrofula, and syphilis, is past. With sound principles in pathology, and a correct knowledge of pathological anatomy and differential diagnosis, all the different and numerous affections of the mucous membrane; simple injection, with or without extravasation; acute hyperæmia, with increase and alteration of the secretion, and follicular swellings; acute serous or bloody exudations, with more or less severe symptoms; pseudo-membranous deposits of epidemic, cyphilitic, or mercurial character; purulent discharges; ichorous decomposition; chronic alteration of both vascularization and secretion; hæmorrhage; œdema; hypertrophy and whatever changes we have learned to take place in the mucous membrane of all the organs that have been submitted to your attention in previous lectures—will no longer present to you the difficulties of bygone times, nor urge upon you the necessity of resorting to an obscure, generally erroneous and improbable, and almost always unproven explanation.—*Amer. Med. Times.*

ON THE MOLECULAR THEORY OF ORGANIZATION

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Parodying the celebrated expression of Harvey—viz: "Omne animal ex ovo," it has been attempted to formularize the law of development by the expression, "Omnis cellula e cellula," and to maintain "that we must not transfer the seat of real action to any point beyond the cell."* In the attempts which have been made to support this exclusive doctrine, and to give all the tissues and all the vital properties a cell origin, the great importance of the molecular element, it seems to me, has been strangely overlooked. It becomes important, therefore, to show that real action, both physical and vital, may be seated in minute particles, or molecules much smaller than cells, and that we must obtain a knowledge of such action in these molecules if we desire to comprehend the laws of organization. To this end I beg to direct attention—

1st. To a description of the nature and mode of origin of organic molecules.

2nd. To a demonstration of the fact that these molecules possess inherent powers of forces, and are present in all those tissues which manifest vital force.

3rd. To a law which governs the combination, management, and behavior of these molecules during the development of organized tissue.

I. By a *molecule* is to be understood a minute body, seen under high magnifying powers in all organic fluids and textures, varying in size from the four thousandth of an inch down to a scarcely visible point, which may be calculated at much less than the twenty thousandth of an inch in diameter. Optically it is distinguished according to its size, the smallest presenting dark or light points as the focus is changed, and the larger exhibiting a dark or light centre, surrounded by a distinctly-shadowed ring. These last are frequently distinguished by the name of *granules*. The ultimate molecule

* Virchow, English Translation, p. 3.

has never been reached even with the highest magnifying powers. In the same manner that the astronomer with his telescope revolves nebulæ into clusters of stars and sees other nebulæ beyond them, so the histologist with his microscope magnifies molecules into granules and sees further molecules come into view. The chemical composition of these molecules must vary infinitely, but I have been in the habit of classifying them into three groups, and referring them to (1st) the albuminous, (2nd) the fatty, and (3rd) the mineral compounds. These constituents may be mingled together in various proportions so as to produce simple and compound molecules. In the vast majority of cases they are globular in shape, but they may be angular, square, and of various forms. They may differ in size or be of tolerably uniform size in the same liquid or substance. They may be regularly or irregularly diffused in the matter examined. Sometimes they are concentrated in particular places, and at others scattered in groups. Their color is various. Most of the pigments in plants and animals are dependent on the formation of molecules, which in the human lung have been proved to be pure carbon, and in the tissues of plants and animals differently tinted kinds of fat or of wax.

These molecules may be formed in two different ways: 1st, by precipitation in fluids; 2nd, by the disintegration of previously formed tissues. The former may be called *histogenetic* and the latter *histolytic*. They may be denominated molecules of formation and molecules of disintegration.

Histogenetic molecules are formed either from the union of two simple organic fluids, or from precipitations occurring in formative fluids, holding various substances in solution. Fourteen years ago I read to the Royal Society of Edinburgh a paper giving an account of the results obtained by a union of oil and liquid albumen, the two organic fluids from which molecular matter is most commonly derived. It was Dr. Ascherson, of Berlin, who first discovered the important fact, that the mere contact of oil and fluid albumen caused the latter to coagulate in the form of a membrane, which he called the haptogen membrane, from *aptomai*, to come in contact. A more complete mixture of two such drops produces, as is well known, a white opaque fluid or emulsion which in structure exactly resembles milk. That is to say surrounded by a layer of membrane of coagulated albumen Such compound molecules possessing the property of endosmose may therefore readily be produced artificially, and b

trituration can be reduced in size so as to resemble the elementary molecules in chyle or in the yolk of an egg. If oil and albumen be introduced into the stomach and intestinal canal, they are always so reduced; and one of the objects of digestion would appear to be, separating from the food and rendering fluid its oil and albumen, so as to produce the chylemolecules which are ultimately transformed into blood. Indeed, everywhere in living organisms it may be observed that oil and albumen, formed as secretions by plants, and entering the bodies of animals as food, either separately or united, constitute the chief origin of molecular formations.

Mr. Rainey has recently pointed out the condition which causes molecular mineral matter to assume the form of rounded nuclear bodies.* This condition is viscosity. If carbonate of lime be dissolved in water, the forms produced on its precipitation are crystalline; but if the fluid be glutinous—composed, for example, of fluid, gelatine or gum—the forms produced are oval or globular. Precipitations made in this way on slides of glass, closely resemble the appearances called nuclear or cellular in different stages of development. Mr. Rainey has further shown how starch granules are produced in the juices of vegetables by the endosmose of gum into a cell containing a solution of dextrine.† In the same manner that the contact of oil and albumen produces oleo-albuminous molecules, so does the contact of gum and dextrine precipitate starch molecules. In this manner we can comprehend how the mixture of various organic fluids gives rise to particles of different kinds.

Histolytic molecules are the result of the transformation and disintegration of fluid and solid substances by chemical and or mechanical action. They are generally larger in size than histogenetic molecules, are more purely fatty, and, from being associated with the *débris* of broken-down texture, may in most instances be readily distinguished. Thus in the breaking up of cells and of muscles when they become fatty, or in the putrefaction of vegetable or animal matters, these may be seen to soften, lose their peculiar structure, break up, and ultimately be reduced to a molecular condition.

We shall subsequently see that these two kinds of mole-

* On the Mode of Formation of Shells of Animals, of Bone, and of several other structures, by a process of Molecular Coalescence, &c. By Geo. Rainey, M. R. C. S. London, 1855.

† Microscopical Journal, 1859.

cules are constantly changing places; or, in other words, molecular matter formed from the process of integration may, when placed under peculiar circumstances, become the basis of matter which undergoes development. In nature, the breaking down of one substance is the necessary step to the formation of another; and the hystolytic or disintegrative molecules of one period become the histogenetic or formative molecules of another. The fact constitutes the basis of the law which I shall subsequently seek to establish.

II. These molecules are governed by forces, which induce amongst them a variety of movements, and cause them to combine in definite ways. This force, which we may call *molecular force*, is altogether independent of cell, nucleus, or other form of structure.

1st. There are the well known molecular movements described by Robert Brown. These vibratile, circular, serpentine, or irregular motions may be observed whenever molecules are suspended in fluids of certain desitines, but are too well known to require notice here. They occur altogether independent of organized structures, and must be regarded as in their nature purely physical.

2nd. The peculiar movements observed in the interior of cells, vegetables or animal, and during the putrefaction of organic matter. The former are seen in the large vegetable cells of the Chara, Valisneria, and Tradescantia, amongst plants; and those of chyle, the yelk of the egg, and of the salivary cell amongst animals. I have frequently watched the formation of the latter in putrid fluids. A scum, composed of molecules, collects on the surface; gradually several of these unite in minute filaments, more or less long, which assume vibratile or serpentine movements. They are then called *vibriones*. It has been much disputed whether this class of molecular motions be physical or vital.

3rd. The movements, which are unquestionably vital, that occur in the molecules of the yelk, on the entrance into the ovum of the spermatozoid. Here it cannot be maintained that the results are purely physical, because in different ova we see such widely varying effects from apparently the same cause. Neither can it be attributed to any direct influence of the cell or of its nucleus—the germinal vesicle. For example, an egg is fully matured in the female organs of generation, and would prove abortive if a spermatozoid did not find its way through the zona-pellucida and get amongst the mole-

cules of the yelk. As soon as it does so, the apparently purposeless Brunonian movements receive a new impulse and direction. Both spermatozoid and germinal vesicle are dissolved amongst them; and that wonderful phenomenon of the division of the yelk takes place, not by cleavage or other action of the cell-wall or nucleus, but by the separation of the mass into two masses instead of one. This may be compared to what is observable in a dense crowd of men called upon to pass over to the right or left hand in order to settle any disputed question by majority. At first unusual confusion is communicated to the whole; some hurry in one direction, others in another; but, after a time, there is seen at the margins, where the crowd is less dense, a clear space, which gradually approaches the centre, and at length bisecting the whole, produces a complete segregation of the crowd into two portions. So with the molecules of the yelk in the egg after impregnation; their movements are directed by conditions which did not previously exist, and a stimulus is imparted to them which causes the peculiar result. It is the division and subdivision of the yelk, wholly or in part, which produced the germinal mass out of which the embryo is formed, and this not by any direct influence of the cell or nucleus, but in consequence of a power inherent in the molecules themselves, which is communicated to them for a specific purpose.

4th. The peculiar movements so well described by Brucke, Von Wittch, Harless, and especially by Lister, in the pigment-cells of the frog's skin;* and which occasion the sudden change of color in the chameleon, in fishes, and numerous other animals. The black pigment molecules may be diffused throughout the cell or concentrated in a mass, and all kinds of intermediate gradations may exist between diffusion and concentration. The change in color is owing to these alterations in the molecules, the tint being light when they are concentrated, and dark when they are diffused. Mr. Lister ascertained by experiment that their concentration is caused by exposure to light, by death of the animal, and by sudden section of the nerve going to the skin; while darkness and irritation of the nerve or skin causes diffusion. Sudden amputation of the limb produced at first diffusion, followed by the concentration of death. These movements of the pigment molecules are peculiarly vital, and altogether indepen-

* On the Cutaneous Pigmentary System of the Frog.—Philosophical Transactions, 1858

dent of the cell-wall or nucleus. The cell-wall is stationary, and acts only as a sac or investing membrane around the moving particles, while the concentrations of these about the nucleus is purely accidental, and frequently occurs in other parts of the cell. I have seen these molecules myself, as Mr. Lister describes them, streaming out to, and returning from, the circumference, under the influence of the stimuli referred to, where no cell nor nuclear action could be thought of.

5th. There are many other kinds of movements which are evidently independent of cells—for example, those of cilia and of spermatozoids. The former are outside cells, and the latter only move when they are liberated from the cells. The contractile fibrillæ of the muscle are evidently not dependent for their inherent powers on cells or other form of structure, but on the square-shaped molecules of which its substance is composed. All these phenomena, therefore, are connected with the molecules themselves; the force occasioning them is a molecular force, and has nothing to do with pre-existing cells, or supposed germinal centres, as some have imagined.

Again, the power of combination between these molecules, which, under peculiar conditions, not only move, but so move as to advance towards and press upon each other, that they at length unite and produce higher forms, must also be attributed to a molecular force operating in obedience to fixed laws. Thus it was demonstrated by Newton, that in a sphere the total attraction resulting from the particular attrantion of all its competent parts is, as regards any body drawn towards it, the same as if they had been concentrated at the centre. Hence minute spherical particles, as so many gravitating points, will be drawn towards each other with a force varying inversely as the squares of the distances between their respective centres. I may here refer to the able descriptions of Mr. Rainey,* as to the physical laws regulating the formation and disintegration of bodies by molecular attraction and repulsion as well as to the effects of molecular superposition, showing that the same physical power which leads to the formation of these artificial bodies, when long continued, causes their disintegration and destruction. All these changes occur slowly, and require time; but their contemplation, when regarded as purely physical phenomena, must strike us with surprise, as being closely allied to all our conceptions of the progress of life itself.

* *Op. cit.* See also papers in the Microscopical Journal, 1860.

In making use of the expression *life* and *vital action*, I am only using terms to indicate phenomena which, in the present state of science, cannot be accounted for by the ordinary laws of physics. Or it might be said that certain actions are directed and governed by conditions which are as yet undetermined, but which, as they only occur in organic, as distinguished from inorganic bodies, constitute vital actions. Not that an organized body is independent of physical forces, but that certain directions are communicated to them, which, as invariably resulting in specific forms or properties, make up the sum of what we call vitality.

Hence, although we see molecules combining in the forms of crystals and nucleated sperules, inasmuch as we have discovered the physical conditions on which they depend, and can produce them artificially, we have no difficulty in classifying these amongst purely physical phenomena, even when they occur in the interior of animals. But when other molecules unite to form nuclei, cells, and fibres, and these arrange themselves into tissues and organs to produce plants and animals, we are ignorant of the conditions by which these results are brought about—we cannot imitate them artificially, and are content to cal them vital. But the fact I am anxious to point out is this, that so far as observations and research have enabled us to investigate this difficult matter, it appears that the formations and disintegration of vegetables and animals, as well as the peculiar properties they exhibit, are essentially connected with the molecular element. Thus, when we investigate the functions of plants and animals—for example, generation, nutrition, secretion, metion, and sensation —we find them all necessarily dependent on the permanent existence and constant formation of molecules.

Thus generation, both in plants and animals, is accomplished by the union of certain molecular particles called the male and female elements of reproduction. Amongst the Protophyta, the conjugation of two cells enables their contents, or the endochrome, to mix together. This endochrome is a mass of colored molecules, and the union of two such masses constitutes the essential part of the generative act. In the Cryptogamia, a vibratile antheroid particle enters a germ-cell, and finds this last filled with a mass of molecules, which, on receiving the stimulus it imparts, assumes the power of growth. It is the same amongst the Phanerogamia when the germ-cell is impregnated by the pollen tube. In all these cases it is necessary to remember that the protoplasm is a mass of mole-

cules; that a spore is another mass of molecules; that sporules are molecules; that antherozoids are only molecules with vibratile appendages; and that the so-called germinal matter of the ovule is also nothing but a mass of molecules. Cell-forms are subsequent processes, and once produced may multiply endogenously, by germination or cleavage; all that is here contended for is, that the primary form is molecular, and that the force producing action in it is a molecular force.

In animals, as in vegetables, every primary act of generation is brought about by the agency of molecules. The Protozoa entirely consist of mere molecular gelatiniform masses, in which it has never been pretended that a cell-wall or central cell exists. And yet such masses have the power of independent motion, and of multiplying by gemmation. Considerable discussion has occurred as to whether, amongst Infusorians, there is a union of sexes or a conjugation similar to what occurs amongst the Protophyta; but in either case it is by molecular fusion that the end is accomplished. In the higher classes of animals there are male elements, consisting of molecules, generally with, but sometimes destitute of, vibratile filaments; and female elements, composed of the yelk within the ovum, containing a germinal vesicle or included cell. Both spermatozoid and germinal vesicle are dissolved in the molecules of the yelk, which then, either wholly or in part, by successive divisions and transformations, constitute a germinal mass out of which the embryo is formed. Here, as in plants, it is necessary to remember that the spermatozoids, the yelk, and the germinal mass are all composed of molecules, and that these, combining together, form the nuclei, cells, fibres, and membranes which build up the tissues and organs of the organism. It is not from either the male or the female element that the embryo is formed. The supporters of an exclusive cell doctrine have endeavored to show that there is always a direct descent either from the wall of the ovum or from the germinal vesicle as its nucleus. Thus some consider that the vitelline membrane sends in partitions to divide the yelk mechanically. Others have formed the idea that the germinal visicle bursts, and that its included granules constitute the germs of those cells which subsequently form in the germinal mass. Others, again, suppose that on impregnation the germinal vesicle divides first, and that the molecules of the yelk are attracted round the two centres so formed. But numerous observations have satisfied me that both spermatozoid and germinal vesicle are simply dissolved

amongst the molecules of the yelk, from the substance of which, stimulated and modified by the mixture so occasioned, the embryo is formed; a view which has further the merit of explaining what is known of the qualities of both parents observable in the offspring. I am only acquainted with one exception to this general law—namely, the development of *Pyrozoma*, recently described by Mr. Huxley, the description of which, however, is incomplete.* The truth appears to be, that in an analogous manner to that in which the pigment molecules of the skin are stimulated by the access of light to enter into certain vital combinations with one another, so are molecules of the yelk stimulated by the access of the spermatozoid to produce those other vital combinations that result in a new being. The essential action is not so much connected, as has hitherto been supposed, with the cell-wall or nucleus, as with the molecular element of the ovum.

With regard to nutrition—food and all assimilable material must be reduced in the first instance to the molecular form, while the fluid from which the blood is prepared—chyle—is essentially molecular. Most of the secretions originate in the effusion of a fluid into the grand-follicle, which becomes molecular and gives rise to cell formation. In muscle, the power of contractility is inherently associated with the ultimate molecules of which the fasciclus is composed; and, lastly, the gray matter of the sensory, ganglia and of the brain, which furnishes the conditions necessary for the exercise of secretion, and of even intellect itself, is associated with layers of molecules, which are unquestionably active in producing the various modifications of nervous force. These molecules are constant and permanent as an integral part of these tissues, as much as cells and fibres are essential parts of others, and their function is not transitory, but essential to the organs to which they belong.

All these facts point to the conclusion that vital action, so far from being exclusively seated in cells, is also intimately associated with the elementary molecules of the organism.

III. This leads me, in the third place, to an enunciation of the molecular law of growth, which a study of the numerous facts previously referred to has induced me to frame—viz: *That the development and growth of organic tissues are primarily owing to the successive formation of histogenetic and histolytic molecules.* We have already seen that development

* Annals of Natural History, Jan. 1860, p. 35.

and growth in animals originate in the molecules of the yelk of the egg, or of a germinal molecular mass formed from it. From numerous careful researches recognized by scientific men as giving a correct account of the development of various animals and textures, it would appear that the first form is molecular; that the moleculss unite to produce nuclei and cells; that these become disintegrated to produce a secondary mass of molecules; that these again unite to form secondary nuclei and cells; and that the same process is repeated more or less often in various developments, until the animal or tissue is formed. This constitutes the successive histogenetic and histolytic molecules observable in the process of growth —the former building up, to a certain extent, and the product disintegrating to produce the latter, which after a time, again, rearranges itself and becomes histogenetic to form cells or tissues, which in their turn break down and become histolytic. In short, not only development, but growth and secretion, absorption and excretion, are only different names given to histogenetic and histolytic processes, and these are brought about by formative and disintegrated molecules. As illustrations of this law, I may refer to the development of *Ascarix mistax*, as described by Nelson,* and of the process of nutrition in the human body.

In this, and a vast number of similar observations, it must be evident that a certain series of molecular transformations is necessary for the one which follows it. Thereby is produced a continual elaboration of matter,—a constant chemical and morphological series of changes,—the exact number and order of which, in the production of organic forms, only require time and perseverance to discover. Doubtless various conditions, dynamical, chemical and vital, must co-operate in producing the result, and they must all influence molecular as well as every other kind of combination. Such considerations and facts must convince us of the error of endeavoring to place the source of special vital action in any particular form or arrangement of organic matter, whether fibre, cell, nucleus, or molecule. Each and all of these elements have their vital endowments, which re-operate on the others. But, inasmuch as the molecular element is the first as well as the last form which organized matter assumes, it must constitute the principal foundation of organization itself.

It is not my object, in directing attention to a molecular

* Philosophical Transactions, 1850, plates xxviii, xxix, figs. 50, 68, 70, 78.

theory of organization, to interfere in any way with the well observed facts on which physiologists have based what has been called the cell-theory of growth. True, this last will require modification, in so far as unknown processes of growth have been hypothetically ascribed to the direct metamorphosis of cell-elements. But a cell once formed may produce other cells by buds, by division, or by proliferation, without a new act of generation, in the same manner that many plants and animals do; and this fact comprehends most of the admitted observations having reference to the cell doctrine. The molecular, therefore, is no way opposed to a true cell-theory of growth, but constitutes a wider generalization and a broader basis for its operations. Neither does it give any countenance to the doctrine of equivocal or spontaneous generation. It is not a fortuitous concourse of molecules that can give rise to a plant or animal, but only such a molecular mass as descends from parents, and receives the appropriate stimulus to act in certain directions.

In conclusion, the theory I have endeavored to establish on histological and physiological grounds is fully supported by all the known facts of disease and of morbid growths, which further serve to show that pathology, so far from being cellular, is, in truth, molecular.—*London Lancet.*

ON THE MODE OF ACTION OF ALCOHOL IN THE TREATMENT OF DISEASE.

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The subject to which I propose to direct attention is one which for some time past has excited an unusual amount of professional interest, and has led to some angry discussion. Its importance cannot well be exaggerated, since in the quantities which alcohol has of late years been administered in diseases, this agent must be powerful for good or evil; and the more so now that the plan, having passed out of the hands of him who introduced it, may not unlikely be adopted by many of his pupils and admirers, who have not so large an experience or so well-informed a sense of discrimination. But, whilst impressed with these facts, my object now is not

principally to keep up the present controversy, but, since additional information on the subject has been recently obtained, to discuss its merits on scientific grounds, and to remove it further from the domain of hypothesis and empiricism. I wish to show what is the true action of alcohol, and thence the general conditions of system to which it is fitted, rather than to discuss minutely the specific diseases in which it may be employed. The same conditions exist in some stages of many diseases, and hence it is better to confine our attention to the separate indications for its use, than to regard the whole phenomena of a disease as a unity, to be treated on a uniform plan. The indications being given, it will be easy to specify the diseases and stages of diseases to which its action is suitable.

In adducing the proofs of the action of alcohol in diseases to which it is suitable, I presume we are entitled to cite its action in health; for whilst the *degree* of action in the former may be different from that in the latter, the *direction* of its action must be the same in both. The indications for its use in disease can never be opposed to its indications in health, but tolerance of its action may be very different in the two conditions. This is an important consideration; for whilst we have much proof of its action in health, we have very little, indeed, in disease. At present we only seek for its mode, and not its degree of action.

The knowledge of its action in health may be sought for from two sources; that which is readily cognisant to the senses, and that from scientific research. The former source of information is perhaps more valuable in this than in any similar inquiry, for the universal employment of alcohols and their decided effects render them objects of popular observation.

The Brain.—Alcohols, in moderate quantity, are popularly known to excite the spirits, and to quicken certain qualities of the mind, but to lessen the power of concentration and the clearness of thought; and, when taken in larger quantities, to disturb the harmony of the mental actions so as to render the person furious and ungovernable, to lesson the power of perception and sensibility, and ultimately to produce coma.

The Skin and Heart.—They also make the hands and face red, hot, and swollen, and increase the force of the heart's action. The skin is commonly dry as well as hot.

Heat.—They yield a pleasant warmth to the stomach and alimentary canal, and the more so when the skin is cold.

The Muscles.—The muscular force seems at first sometimes to be increased, for a man in his fury can exert unwonted strength; but this is only in appearance, and commonly there is less disposition to move, and less power of co-ordinating the muscles; whilst relaxation of the features exists, and ultimately there is inability to move.

The Kidneys.—In some persons there is diuresis, whether from increased secretion of urine or from lessened power of the sphincter.

The Lungs.—The breathing in approaching coma is feeble, labored or irregular.

These effects are temporary, enduring two or three hours; and after the excitement there are, in very varying degrees, depression of the spirits and general lassitude, mental prostration, dry furred tongue, unpleasant taste, headache, derangement of digestion, and loss of appetite. Soda-water and brandy in the morning are as refreshing to some persons after as the wine or spirit was pleasant during the debauch.

Persons vary very much as to the amount of alcohol which they can take, and as to its effect upon the skin and kidneys; but, as a rule, one who perspires and passes urine freely can take the larger quantity. A degree of training is also necessary, so that persons become accustomed to the use of alcohol —that is to say, they gain some power of adaptation of the system to its presence. Alcohol-drinkers in excess are known to be unhealthy, and not equal to others in mental or physical power. They also suffer from loss of appetite, deficient assimilation, and local effects on the brain, stomach, liver and kidneys. Ale-drinkers are more subject to inflammation than spirit-drinkers. Such are popular observations.

In a prolonged inquiry upon myself and another, we took the alcohols in moderate quantity, duly diluted, on an empty stomach, in the morning and during rest; and we also noticed most carefully the general effects, and the moment of their occurrence. The parts of the system influenced by the alcohols, and the order of the occurrence of their symptoms, were as follows:

1. Upon the heart, and doubtless from the local action of the alcohol.
2. Upon the brain, as shown by the consciousness, mental and sensual perceptions.
3. Upon the cerebro-spinal tract, as shown by the muscular system, and upon the reflex function of the spinal cord.
4. Upon the respiratory tract.

5. Upon the sympathetic system; but as it is not possible to show the moment when the secretion of urine, for example, is interferred with, it may be that this should have had an earlier place in this order of sequence.

The details of these actions and the period of their occurrence may be thus epitomized, it being borne in mind that the experiments were made in the morning during fasting:

(*a*) In from two to eight minutes a sensation of fullness at the crown and the back part of the head, or at the temples, according to the kind of spirit taken. This was due, doubtless, in great part, to the increased force of the heart.

(*b*) In from two to seven minutes the mind was disturbed. Consciousness, the power of fixing the attention, the perception of light, and we believe of sound also, was lessened; the power of directing and co-ordinating the muscles was also lessened, while there was a very marked, peculiar, continuous, purring or thrilling, and not unpleasant sensation, passing from above downwards through the whole system. This latter symptom was the most pronounced in from fifteen to forty minutes, and continued, without much variation, during 20 to 30 minutes. After this period, the whole effect recorded under this head diminished, and oftentimes suddenly, as was shown by the increased perception of light, as if a veil had fallen from the eyes, and by increased consciousness; but, nevertheless, the last power to be *completely* regained was consciousness.

(*c*) The increase in the action of the heart set in as soon as three minutes, and continued from thirty to fifty minutes.

(*d*) Coincident with this increase was a sense of dryness, heat, and evident fullness or swelling of the exposed parts of the skin, as the hands and face, and also a general sensation of heat. This was due to the increased supply of blood to the surface, and the lessened refrigeration of the skin. This increased for a time, and so much so, that, with rum especially, the skin was as harsh and dry as when exposed to an easterly wind. After about twenty to forty minutes, this sensation of heat gave place to one of cold, which was first felt on the most sensitive part of the body with regard to temperature, viz., between the shoulders, and at length, notwithstanding the existence of a suitable degree of atmospheric temperature, it became distressing, and led even to shivering. This was sometimes so marked, and occurred so suddenly, that it gave rise to a shock. It did not correspond with the temperature of the skin, but it was usually co-existent with the cessation of the increase of the heart's action.

(*e*) The muscular system was influenced in a marked and definite manner. The action on the involuntary muscular fibres of the heart has already been mentioned. The thin layers of voluntary muscles found about the body showed great relaxation. The respiratory muscles acted in a gasping manner, so that there was a pumping and quick respiratory effort in the later stage. At all periods there was a sense of impediment to respiration. The muscles of the limbs were inactive. There was relaxation of the muscles, and stiffness of the skin of the face, forehead, and upper lip, so that the features fell. This state of the muscular system followed the commencement of the effect upon the consciousness, and other functions of the brain, and also the excited state of the heart. In reference to its cessation, the power of co-ordinating the muscles was first regained, whilst the buzzing sensation and semi-cataleptic state continued, and the disposition to use the muscles was regained last of all. There was so close a connection between the nervous and the muscular systems, and complete consciousness is so essential in inquiries of this kind, that it is not easy to isolate the effect upon the muscles; but close attention to all the phenomena, the care to note them down at the moment of their occurrence, and the long series of experiments that we have made, assures us that the muscular tone and power are greatly lessened; that the effect is not identical upon voluntary and involuntary muscles, and that it is not even identical upon the inspiratory and expiratory set of muscles.

(*f*) The effect upon the mind is also very marked and peculiar, and would have been a very valuable study to a psychologist in search of facts. Rum and some other spirits made us very hilarious and talkative in about ten minutes, and during about twenty to twenty-five minutes; so much so, that my friend was almost a king; but as minutes flew away, so did our joyousness, and little by little we lessened our garrulity, and felt less happy, until at length, having gone down by degrees, we became silent, almost morose, and extremely miserable. Then, indeed, we felt the horrors and the sorrows of the drunkards lot, snd saw, with a clearness that can only be perceived by such experience, how certain it is that he must again drain the intoxicating cup. Never were the extremes of happiness and misery brought so vividly before us, or seemed to be in such close poximity, as on those occasions, and never did we so deeply commisserate the

slavish, miserable, and almost hopeless condition of the poor wretch who has become a victim to this fearful vice.

In addition to the above, we may mention that every mental perception was darkened, and that the dreaminess, which is not an unpleasant feature of it, is a condition in which neither thought nor imagination acquires power. We suspect very greatly the statements of those who profess that fancy is then on her most airy wing, or that thoughts spring forth without the efforts of parturition, and our most charitable reply to such statements would be, that it is all a dream.

(*g*) The effect upon the secretions was very marked, and, in addition to its varying effect upon the urine, it is certain that the secretion of the salivary glands and of the mucous membranes was lessened, as was shown by the dry state of the mouth, and by the sore and dry condition of the tip of the tongue, which was so often present when the rum was taken.

(*h*) The duration of the influence was varied somewhat, both with the substance taken, (being usually longer with rum, and shorter with gin,) and with the season of the year. In the spring time, it passed away within an hour and a half or two hours; but at other times the system continued to be disturbed, and we were depressed during the whole morning.

In a further inquiry which I have recently made in one of our prisons, I found that when a small quantity (half an ounce of alcohol) had been given four times a day to prisoners who labored at the treadwheel, it produced lassitude, thirst, and great diminution in the amount of urine. The prisoners remarked that they felt lazy and unfit to do their work, and slept more soundly at night.

Thus, the effect of alcohol, as shown by common observation, both of a general and precise kind, seems to show—

1. That the spirits may be excited, but all the functions of the brain are lessened or disturbed. The spirits are not the result solely of the action of the brain.
2. Muscular power is lessened.
3. The secretions of the salivary glands and mucous membrane, and, perhaps, of other organs are lessened.
4. The action of the skin is lessened.
5. The action of the heart is increased in force.
6. There is increased sensation of heat, due chiefly to the larger distribution of blood to the skin, (the organ of sensation of temperature,) and to the diminution of the loss of heat by diminished evaporation from the skin—a diminution not prevented by an increase in the loss of heat by radiation.

7. The sensation of cold in the reaction seems to be due quite as much to disturbed sensitiveness of the nervous system of the skin as to a withdrawal of the increase of the supply of blood to the skin, for it was far more severe than the external temperature warranted.

SCIENTIFIC RESEARCHES.

We may now turn to scientific research. The inquiries have been very numerous, but I will select Hammond as their type, because whilst his results have much corresponded with those of the other observers of his period, they are all liable to the same kinds of objection.

As to the influence of alcohols upon the respiration and the *heat-forming* function:

To chemists we owe the statement that alcohol aids in the heat-forming function of the body, because it is an hydrocarbon; and that it is transformed in the system, and eliminated as a carbonic acid and water, it must yield heat in these transformations. Hammond and all others found that alcohol lessened the quantity of carbonic acid expired, but no one has pointed out the inconsistency of this statement with the chemical view to which all these observers have given their adhesion—viz: that alcohol is resolved into carbonic acid, which must pass out by the lungs, and thereby increase the evolution of carbon. Lallemand, to whom we shall refer presently, when denying the transformation of the alcohol, says that he does not understand how alcohols lessen the excretion of carbonic acid, but upon this point he had not experimented.

Now see the objections which may be fairly raised to the experiments from which these results have been obtained:

1. Hammond collected the quantity for one minute three times a day, and thence inferred the total quantity in the twenty-four hours. This evil is also found in most other experiments, as those of Prout, Vierordt, Coathupe, Bocker, and others.

2. Hammond assumed that he ordinarily inspired 14 times a minute in health, and during all his experiments he did the same, and tried to inspire the same quantity as in health. Hence, at the most he could only have sought for the per centage of the carbonic acid in the expired air, and not the total quantity evolved in a given time; but the attempt to voluntarily limit the respiration deprives the whole process of value. Prout also sought only by the per centage amount. Further,

Hammond expired *through* a volume of solution of baryta, and thereby placed a weight upon his expiration, which would either prevent the completeness of the act when the respiratory power became feeble at the end of expiration, or it would demand an unusual force in expiration, which no man can so measure as to make the result correspond with free respiration.

3. The influence of other food was assumed to be the same from day to day, because the same amount of food was taken, and the same exertion made, and, moreover, it was supposed to be the same at the three particular minutes at which the carbonic acid was collected; but this is quite a fallacy, as we have shown in the hourly variations in the evolution of carboni acid. ("Philosophical Transactions," 1859.) The same admixture of other unknown influences from food, and the same want of knowledge (the knowledge did not then exist) of the natural variation in the amount of carbonic acid evolved at the various hours of the day, and of the variations from day to day, apply also to the experiments of Vierordt, Bocker, Coathupe, and other observers. Hence the liability to error in inferring large from very small quantities, and in assuming that conditions are constant whilst they are most variable, lessens vastly the reliability of the results obtained. To this might be added, in reference to Hammond's experiments, the imperfection of his apparatus; for it is quite certain that a tube of chloride of calcium would not absorb all the vapor from the breath during the act of breathing, and, also, that he ought to have appended a desiccator, through which the air should pass after the partially dried air had passed through the solution of baryta.

The results of my experiments have not entirely corresponded with those now referred to; but having collected the carbonic acid for five or ten minutes at a time every fifteen minutes during the action of the alcohol, with the expiration quite free; having maintained a uniform state of rest; having experimented in the absence of food or any other cause of disturbance, and having taken one moderate dose at each experiment, it is hoped that the nearest approach to the true action of alcohol has been made. Moreover, the number and extent of the experiments far exceed those which all previous observers have recorded. For the description of the method and apparatus employed, as well as the details of the experiments, I must refer to the "Philosophical Transactions" for 1859.

Alcohol, in every dose up to the usual one in taking spirits and water, increased the amount of carbonic acid evolved, but not with the uniformity of a food, nor to a greater average extent than one-eighth to half a grain per minute. The effect was much more sustained when a small dose, as half an ounce was repeated every quarter of an hour. Prout, and all observers, have noticed the want of precise uniformity in the action of alcohol.

Rum increased it somewhat more, and on some occasions much more. It is a spirit which is colored with burnt sugar, and we have proved that sugar very largely increases the evolutions of carbonic acid, but the cause of the increase has not been established.

Whiskey varied according to the sample.

Brandy and gin (both good, the former foreign and the latter unsweetened) lessened the quantity of carbonic acid evolved to a moderate extent generally, but sometimes gin caused great depression.

The duration of this action was from one to two hours.

The volatile oils and ethers which give character to the various wines and spirits, always, when inhaled, lessened the quantity of carbonic acid and vapor exhaled; and this was the greatest when the aromas were the best—viz: in old and fine wines and spirits. This result was without an exception. The effect of fusil oil, and other unknown compounds which cause headache, was not separately determined.

With all these substances there was variation in the effect, both in the same and different persons, and we characterized them as disturbers of the system.

Ales always increased the amount of carbonic acid evolved, to an average degree of a half to one grain per minute, and through a duration of two hours. They contain, besides alcohol, sugar, nitrogenous matter, and volatile aromas, and to the two former this effect must be attributed.

Rum and milk had a very similar, but greater and more sustained action.

Here I venture to affirm that alcohol, as a general stimulant, slightly increases the vital action of respiration; that gluten and sugar do so more largely; and that the aromas and probably the fusil oil and other injurious ingredients of bad spirit lessen these changes.

Now, in reference to the *flesh-forming* or the nitrogenous process. I do not stop to show that the term "flesh-forming" is derived from the supposed action of nitrogenous matter, as

the waste of flesh is supposed to be indicated by the evolution of nitrogen; but it can be readily shown that urea may proceed either from the tissues, from the transformed food, and cannot therefore at present be regarded as indicating one or other separately.

Hammond showed that alcohol greatly lessened the excretion of urea, and in this he is supported by all observers. But mark the attendant circumstances, as showing the cause for this diminution. He says: "Whilst these experiments were progressing, the healthy action of my system was much disordered. Headache was constant, sleep was disturbed, the skin was hot, pulse full and bounding, averaging 98 per minute; and there was on two occasions after eating slight palpitation of the heart. My appetite was capricious; sometimes disgust was created by the mere sight of food, at other times I ate with a good deal of relish. I should think I should have been seriously ill if I had continued the investigation longer."

Hence it is quite certain that, whatever might have been the physiological effects of the alcohol, they were those of disease, and not of health; and that, although he ate from sixteen to twenty ounces of meat and other food proportionately daily, there was most marked disturbance of the assimilative function. With a large dietary he was ill-nourished, and hence, with lessened transformation of food there was a lessened amount of urea evolved. This is further proved by a reference to his statement that he gained weight (as confirming his view of the power of alcohols to retard waste,) for there was a gradual accumulation of fæces, as was shown by his statement: "This fortunate termination was probably promoted by a diarhœa, of considerable violence, which commenced on the second day after the conclusion of these experiments, and continued forty-eight hours." Moreover, I have proved that the system varies greatly in the amount of fluid which it appropriates, and that with alcohols taken daily, the amount of urine is lessened, and the system has acquired an increased power to accumulate food. This accumulation, like that of fæces, is, however, temporary, and, with elimination of it, all unpleasant symptoms pass away. In our experiments in prisons, we found that in all the four men the quantity of urea evolved was greatly lessened on the first and second day, but on the third day it was almost restored. During this period of retention, the body would gain weight, quite as great in extent as that proved by Hammond, but it would be no proof of diminished waste of tissue.

It may be properly objected, that the above mentioned statement of Hammond, as to the influence of alcohol upon his health, only refers to the two series of experiments in which he ate his ordinary amount, and an excessive amount of food, and that he found no such results to follow its employment when he ate a deficiency of food. This is true; but it does not affect the conclusion at which he arrives, viz., that the alcohol arrested waste of tissue, because, whilst the lost weight daily before he took the alcohol, he ceased to do so when alcohol was added to his diet, and at the same time the amount of urea was diminished. Let us for a moment see what value ought to be attached to this statement.

Before the experiment began, on an average of five days, his weight was 225·97 lbs., and the daily weights of the fæces and urine were 6 oz. and 41·29 oz. At the end of the experiment, on the average of five days, he had lost, as compared with the previous five days, 47 lbs. in weight, and the daily weight of his fæces and urine was lessened by ·19 oz. and 1.37 oz. The whole question rests upon the fact of there being an arrest of the waste previously going on during the 5 days before the alcohol was taken, and a positive average gain of 0·3 lb. in the weight of a man weighing upwards of fifteen stone as compared with the weight in a single day immediately preceding the experiment. Is it not absurd to attach any value to so small a change, and particularly when we bear in mind the defects of ordinary balances to weigh 226 lbs., the errors of weighing, and the variation of excretion remaining within the body? But let us admit it all, and what is it worth? He gained in weight ·16 lb. on the average of five days, whilst the retention of fluid per day in the urine during the five days was, on the average, ·74 oz, and that of the fæces ·25, or a total retention of excretions of 4·9 oz., from which he ought to have gained much more than he did gain. That these excretions were retained, and were subsequently emitted, is proved by the results of his own and of our experiments. Hence, he gained in weight by the temporary retention of urine and excretion, and not by any increase in the tissue of the body, and the whole supposed value of the experiment and the deductions therefrom is taken away.

Hammond further states, that the perspiration did not appear to be lessened under a temperature of 73° in the shade; but he did not make any experiments in reference to it, and referred only to the evident perspiration. Other experimenters, both upon men and animals, have found the skin unusually dry and harsh.

To these various scientific researches, we will add those of MM. Lallemand, Perrin and Duroy, who have just shown that when a moderate dose of alcohol has been taken, either by a man or dog, the alcohol can be found in the expiration, the perspiration, and the urine for at least eight hours afterwards. They have not collected the alcohol, but they have shown its presence by its action upon the bichromate of potass in sulphuric acid, and have proved that this action is not produced by the allied substance aldehyde. They affirm, therefore, that alcohol is not transformed in the system, but passes off the body unchanged; and the fact that alcohol is found in the brain for a period of seventeen, and it said for thirty-six hours, strengthens their belief. I have carefully repeated their experiments, and have shown on several public occasions, the reaction of alcohol on the breath for four hours after an ounce and a half has been taken. In the case of the skin, M. Lallemand proved the secretion of alcohol, by enclosing an Italian greyhound in a glass case, and passing a current of air over it and through the test; but I have proved its presence in the vapor passing off from so small a part of the body as the arm, and even the hand only, of man. In repeating this latter experiment, sheet caoutchouc must not be used, neither must the containing bag or vessels be employed a second time without having been well cleansed from the alcohol which was left from the former experiment. It will also be more efficiently performed in those persons who perspire freely; for it is highly probable, that whilst alcohol may in all persons pass out of the body by all the above mentioned outlets, it will chiefly select that excretion in each individual which is most free. As, for example, the breath in those who make much exertion, or in cold; the skin in those who perspire freely, and in warm weather; and the kidneys in others. The test is prepared by carefully dissolving one part of bichromate of potash in 300 parts of strong pure sulphuric acid, and it is used by passing the breath through absut a drachm of it placed at the bottom of a tube six or eight inches long. The cherry red color is changed to emerald green.

Thus we are led to the following summary of the mode of action of alcohol:

1st. The action of the heart is reinforced, and by it the fullness and freeness of the circulation are maintained, and the blood carried to the remote parts and to the surface. The tendency to accumulate fluid increases the fullness of the bloodvessels.

2d. The action of the skin is lessened, whereby the loss of heat is reduced, the urgent necessity for food and vital transformation is lessened, and the sensation of warmth is increased. The local action upon the stomach and alimentary canal is that of a stimulant, and increases vascular action and warmth. These are the common and general actions of alcohols; but in some persons the skin acts more freely than in others.

3d. Alcohol is probably not transformed, and does not increase the production of heat by its own chemical action, but indirectly, as above mentioned, and by a general temporary increase in the vital actions. Its action upon the respiration is not its important action.

4th. It interferes with alimentation, and causes the retention of water, and thereby lessens the excretion of urea; and if it lessens muscular waste (which it has not been proved to do), it must be by lessening vital action. Its power to lessen salivary secretion must impede the due digestion of starch. The diminution in the elimination is due in part, as just mentioned, to the excretion of urine by the kidneys.

5th. It lessens muscular power, and the production of certain secretions.

6th. There is no evidence that it increases nervous influence, except the action of the heart and elevation of the spirits be regarded as such; whilst there is much evidence that it lessens the nervous power, as shown by the mind and the muscles.

7th. It varies the balance of the circulation at the centres and the superfices, and interferes with the production of heat.

8th. It has two sets of actions.

9th. The system acquires an adapting power more or less easily and perfectly, and hence alcohols differ sometimes in their action in different persons.

10th. There are other important elements in ales, wines and spirits, having a different and independent action; so that old wines directly lessen vital action, and ales directly promote transformation of food.

The dose influences the phenomena of the action of alcohol, but only in degree, although it is common to consider the action to differ in doses which are called moderate and excessive respectively, the former being stimulating, and the latter exhausting. So far as the direct action upon the mind with its intellectual and sensual perceptions, upon the muscles, and upon the respiration is concerned, we could not see any difference in effect but one of degree; and, doubtless, in indir-

ect effect, that dose which most powerfully acts upon the system directly will be the most likely, by the disturbance of the functions of the system, to produce indirect effects which will tend towards disease.

For all medicinal and dietetic purposes, I venture to affirm that the dose only affects the degree, and not the direction of the influence.

Having thus established the foregoing facts, I proceed to consider the views of the late Dr. Todd on the therapeutic action of alcohols, as contained in his well known lecture on that subject, and to see how far they may be supported by the present state of science. His views are based upon the chemical theory that alcohol is transformed within the system, and produces heat, and the following is a summary of his remarks:

1. Alcohol acts primarily on the nervous system, and, like other hydro-carbons, but in a greater degree, has great affinity for the nervous system.

2. It acts in two degrees: one beneficially, when it augments the generation of nervous power; and the other injuriously, by deteriorating, impairing or destroying the nutrition of nerve matter. In the first degree, and when it acts beneficially, there is no smell of alcohol in the breath; but in the latter or when the dose is too large, the odor is perceptible.

3. There is no true secondary depression of the vital powers, except when the quantity is too large, and then it acts by deranging the digestive functions.

4. Alcohol does not, in any dose, produce inflammation of the lungs, heart or liver. The brain symptoms do not show congestion or inflammation, but a poisoning of the nerve-cell and nerve-fibre.

5. When carefully taken, it upholds the calorifying process, strengthens the action of the heart, and reduces the frequency of the pulse. By upholding the calorifacient process, it prevents oxydation of the nervous and other tissues.

6. It is simply absorbed into the circulatory system; but oil (another hydro-carbon) has a more complicated digestion, and therefore alcohol acts more quickly and certainly.

7. The dose should be from two drachms to two ounces, and repeated as frequently as food would be given, and with the same intention—viz, to save tissues from oxydation. The dose and the frequency should be adhered to.

8. The general use of alcohols shows an instinct in man for them, and in recovery from disease they uphold nervous force and supply the most assimilable material for combustion. They calm the nervous system and avert delirium

9. It is very dangerous to withdraw the alcohol, but the signs which would sanction this are referable to deranged digestion—as flatulus, eructations, sickness, and dry tongue and mouth; and also the smell of the breath which implies that the alcohol is passing off unchanged. Coma and delirium from excess of alcohol rather indicate that more alcohol should be given.

Such is a summary of Dr. Todd's views, and they chiefly include the belief that alcohol increases nerve-nutrition, strengthens the heart's action, lessens the rapidity of the circulation, shields the tissues from oxydation, and produces heat; and the sign which measures the efficiency of it is the non-existence of the odor in the breath. As to the skin, he merely remarks that when alcohol is given to a patient who has a hot skin and a rapid pulse, it may look like an illustration of the dogma, "Similia similibus curantur." In reference to all his inferences from the supposed transformation of alcohol in the system, we may remark that they are of no value if it be shown that this transformation does not occur, but that alcohol, after remaining in the system for a time, and disturbing its action, is ejected still as alcohol. I believe that the latter is almost if not quite certain.

I see no ground whatever for the statement that hydrocarbons have an especial affinity for the nervous system, taking starch and oils as the representative of this class, and Dr. Todd does not adduce any. Neither has it been in any way proved that alcohols improve the nutrition of the nerve cell and fibre in any separate and special way, but only by improving the whole nutrition of the body. Indeed, the phenomena of nutrition lead our attention away from mere local actions as independent conditions, and teach us that it is a general and not a local act. All the phenomena attending upon alcohols when taken in quantities which may render their effects noticeable, evince great nervous disturbance; and I cannot but believe that, whilst the nervous system is principally affected, it is by the opposite of a nutrient and healthy action.

The statement as to the action of the heart is doubtless correct, as is also that upon the frequency of the pulse; but the latter action is indirect, and probably due to the former, whereby a larger quantity of blood is forwarded at each contraction of the heart, and the blood is more perfectly distributed to the whole body. A rapid pulse is commonly a small one, and the impulsion of a large quantity of blood at a time lessens the necessity for the quicker circulation of it.

It is singular that so acute an observer should have made so little reference to the effect of alcohol upon the skin, its power to accumulate water in the body, and to retard the elimination of urea; but in reference to the former I may remark that acetate of ammonia was a most frequent adjunct to his alcoholic treatment, and this might do much to counteract the action of alcohol upon the skin. Moreover, whilst he did not withhold alcohol when the skin was hot and dry, his cases were frequently such as had perspiring skins, and in such instances he remarked upon the diminution in the perspiration during the action of alcohols. It may also here be observed that Dr. Todd most commonly added chloric ether, and not unfrequently quinine, to his plan of treatment, and hence there were several actions induced, some co-ordinate and others opposed.

His statement in reference to the absence of alcoholic exhalation from the lungs in cases of diseases in which the alcohol is well borne, is worthy of further investigation; but on inquiry I do not find that this fact has been recognized by others. If alcohol passes off untransformed, it is evident that this cannot be true; but if it be true, it is a most valuable guide.

Upon the whole, I do not think that the arguments used by Dr. Todd are now sufficient to establish the theory of the action of alcohols, or to warrant his peculiar plan of administering them; but, on the other hand, I think that the practice which he pursued must rest only upon the ground of his personal authority.

It now remains to state the conditions and stages of disease to which alcohols, in various forms, seem to be fitted—the action in health being accepted as a sufficient guide—and it will not be difficult to show that the usual practice of the profession has been based upon truth, however little or much the mode of action may have been understood.

I think that it must be accepted that *the essential and direct actions of alcohols, as remedial agents, are, the increase of the force of the heart's action, the local stimulation of the stomach, and the diminutian in the action of the skin;* whilst the most important independent actions are, the retention of urea and fæces by or with retention of fluid, diminution of certain secretions, and derangement of the assimilative process.

In conditions in which the force of the circulation is too feeble, there must be defective nutrition, innervation, and oxydization of the products of alimentation; for a certain full-

ness of the bloodvessels is clearly necessary to such brain phenomena as consciousness, as may be inferred from fainting; to excretion, as may be seen by the increase of urine after ingestion of fluids; to general innervation, by the sense of *malaise* which accompanies feeble and of *bienaise* which is found with proper heart's action; and a certain frequency and duration of exposure of the blood in respiration, is necessary to the proper interchange of gases, whilst a due amount of action of the heart, as well as of inspiratory effort, is required for the free circulation of the blood through the lungs. Hence, with weakening of the force of the heart, the muscular and nervous forces are weakened, and all vital processes are inadequate to health.

Such a state is that of general debility, deficient innervation, or exhaustion from numerous causes, temporary debility from over-exertion or anxiety, convalescence from almost all diseases, and the state of exhaustion in fevers with certain limitations.

If, in such conditions, alcohol be administered in such a manner as not to induce derangement of the system, it is easy to see how Dr. Todd's statement may be verified—viz., that it improves the nutrition of the nerve-structures, and does not produce inflammation; and, in addition, it may be shown that, by its power to increase the force of the circulation, it will prevent or remove the tendency to local congestion of organs, as the lungs and liver, and the results of such congestion—viz., effusion of fluid—and will improve the whole nutritive and vital powers of the body. This is certainly in accord with universal practice, both in this and former ages, for whilst we may appeal to the great mass of the profession in reference to their experience now, we have on record, in the works of Artæus, an admirable description of the effects of wine in such conditions in his day, which we will transcribe. In the treatment of syncope, he remarks: "But if converted into syncope, and this also happens, (the power of life being loosened, the patient being melted in sweat, and all his humors being determined outwardly, the strength and pneuma being also dissolved,) we must disregard the delirium, and be upon our guard lest the patient be resolved into vapor and humidity.—Then the only support is wine, to nourish quickly by its substance, and to penetrate everywhere, even to the extremities, to add tone to tone; to rouse the torpid pneuma, warm that which is cold, brace what is relaxed, restrain those portions which are flowing outwards—wine being sweet to the sense

of smell, so as to impart pleasure; powerful to confirm the strength for life, and most excellent to soothe the mind in delirium. Wine, when drunk, accomplishes all these good purposes, for they become composed by the soothing of their minds, are spontaneously nourished to strength, and are inspired with pleasure."

But we require at least one other indication as our guide in the administration of alcohol, viz., the condition of the skin. The regulation of the heat of the body, as well as the due distribution of the volume of the blood to the central and perpheral organs, rests very much with the skin. We know very well the great benefit which results in the last stage of fevers in local inflammation, and in sun-stroke, from the free use of cold water to the skin, although that cools the body only by contact and radiation; and of the application of warmer fluids in similar conditions, which, so far as they were of lower temperature than the skin, directly cooled the body, and so far as they approached or exceeded that of the skin, and thus indirectly cool the body. Both these plans are of well known efficacy, and although apparently opposed, produce, or tend to produce, by different methods, the one result. Now, although there may be a deficiency in the heart's action, if the skin be hot and dry, it is manifest that great risk may follow the use of alcohols; and when, in the sthenic stages of fevers and inflammation, the force of the circulation is increased, from the resistance to the current of blood offered by the capillaries in the great inactive external organ of the body—the skin—it must tend directly to do injury. Hence, it was never the practice to give these substances in the active and hot stages of fever; but when the condition arrived in which the skin lost something of its dryness, and became soft, and particularly when it perspired, alcohols and bark became the sheet-anchor of the practitioner. With a perspiring skin, wine and other alcohols could be given profusely, and I once gave six bottles of port wine to a female in forty-eight hours, in such a condition occurring in fever. These are the states in cholera and in diphtheria in which very large quantities have been administered, with the effect of saving life from imminent peril.

Such, also, were the views of the ancients, for Arctæus again writes: "But if the period be already come to a crisis, if there be dew on the clavicle and forehead, the extremities cold, the pulse very small and frequent, or if creeping and feeble in tone, the patient must take a little food and

partake of wine effectually." And again: "But if much sweat flow, the pulse come to a stop, the voice become sharp, the breast lose its heat, we are to give as much wine as the patient can drink. For those who are cold, wine is the only hope of life."

Hence, a feeble pulse and an active skin are, and have always been regarded as the clear indications of the requirement of alcohol, and as the skin loses its exces of action, the rapidity of the pulse will decline, and its fullness and force increase. This is most perfectly exemplified in the case of many Europeans, even ladies, living in India, who find it really impossible to sustain innervation without the use of some forms of alcohol.

I have before referred to Dr. Todd's practice of giving acetate of ammonia, and may remark, in cases of fever, when the exhaustion had just begun, it was always the rule among practitioners to give ammonia, and not an acid, with the cinchona, with or without wine; and no doubt the true action of this was to temper the action of the bark and the alcohol upon the skin, so as to prevent a too rapid reduction of the action of the latter organ. It is, however, singular, that patients with hot and dry skin should have borne the exhibition of twelve or twenty ounces, and even much more of brandy daily, for weeks together, whatever may be the truth as to mortality or prolonged duration of the disease which followed its use. We see in health that there is a remarkable variation in the toleration of the system to the action of alcohol, and in certain conditions of disease we know that the toleration is much greater. If Dr. Todd's statements be correct as to the non-emission of the fumes of alcohol by the breath of certain cases in which large quantities have been given, it is quite open to question if, in such cases, the alcohol obtained its usual entrance into the circulation. This seems to be the explanation of the similar condition in cholera, where the vital power of absorption is greatly reduced, and it is quite certain that the body has naturally a power to limit the introduction of food and water into the blood, but allows it to pass off by the bowels. This is, probably, the safety-valve provided for such emergencies.

It has fallen to my lot to see cases of subacute inflammation of the lungs, and of the deposit which has succeeded to the inflammation, treated on Dr. Todd's method with alcohol, whilst the action of the skin was deficient, and I certainly have been impressed with the belief that the progress of such cases towards recovery was greatly retarded.

The action of alcohol in restraining the secretion of the saliva and of the mucous membranes did not appear to me, in such acute or subacute cases, to be of great importance; for whatever might be the state of the tongue, if the skin were freely acting, and other conditions called for the use of alcohol, the alcohol was well borne.

It is impossible to pass over in silence the influence of alcohol in lessening the excretion of urea; for if it do so simply by causing the retention of fluid in the body, it may be most prejudicial in cases of fever, where the whole safety of the patient seems to depend upon the elimination of the excessive amount of urea which then occurs. It is only when the amount of urea has naturally fallen with the subsidence of the febrile condition that alcohol can be safely administered.

But in any condition in which the amount of urea is lessened by reason of interference with the digestion and transformation of food, it is allowed by all that alcohol is injurious. In this condition it is very likely that the diminution in the flow of saliva may play a very important part, for it must greatly lessen the transformation of starch, and the retention of the fæces with other co-ordinate actions will explain the temporary condition of the liver and the headache, which are their constant attendants.

The efficacy of alcohol in delirium and coma has been quoted as a prime argument in support of recent views.—When the delirium is not the result of blood and brain disease, but indicates exhaustion, as in delirium tremens, syncope, or after fright, it is easy to explain that alcohol, opium, or bark, by giving force to the heart, and lessening the action of the skin and kidneys, is very likely to cause that condition of fullness of the bloodvessels of the brain which is necessary to perfect consciousness. In certain forms of coma the beneficial action of alcohol may be explained by its power to quicken the circulation. In both of these states we shall doubtless find that any remedy which acts in the manner now indicated will be equally beneficial with alcohol. Whilst there is so much diversity and apparent opposition in the remedies employed by various practitioners, there can be no doubt that they have a unity in the mode of their action which it is most desirable to discover.

The local action of alcohols upon the stomach does not call for remark since the direction of their action is evident and well understood. The statement that alcohol must im-

pede digestion, because when a substance is placed in it it becomes hard, can have no reference to the action of the moderate and diluted doses or alcohols which are usually employed in medicine.

The frequency and regularity with which alcohol should be given, when it is necessary to prevent exhaustion, have been well stated by Dr. Todd. As the primary action is temporary and passes away in half an hour, the call for it is quickly renewed, and in cases of imminent danger an interval of half an hour would be long enough.

As to the dose, I venture to recommend the use of small doses—say half an ounce of alcohol where spirits would be given; for we have shown that the frequent repetition of a small dose conduces both to a full and sustained action. It may be well to remember that, as spirits contain from 40 to 70 per cent. of alcohol, sherry and port wines from 17 to 24 per cent., and good ales from 6 to 10 per cent., two ounces of spirit are equal in alcohol to about six or eight ounces of wine, and twelve to sixteen ounces of ale.

In conclusion, I would invite attention to the use of the aromas of wines and the saccharine and nitrogenous elements of ales. It is clear that these have an action apart, and sometimes different from the alcohol, and therefore are fitted for different conditions. The conservative influence of the aromas of wines seems especially to be fitted for the cases of excessive nervous action, in which to reduce the action would conduce to health; whilst in fever it has been remarked that the newer wines, containing little aroma and more spirit than old wines, have a better action.

It is well known that a quantity of alcohol may be taken in wine, and particularly in good wine, in health, without affecting the sensorium, which could not be borne at all if drunk as spirits and water—a fact due partly to the greater length of time over which the drinking of wine is extended, and in other part to the opposing effect of the aromas. The value of the aromas has been recognised in all ages, and Artæus directs that "the wine is to be fragrant and not very astringent."

As sugar largely increases the evolution of carbonic acid, and gluton has a similar but less and less rapid action, and in the latter case at least the carbon could not have proceeded from the gluton, I am led to believe that beers have the power of directly promoting the assimilation of carbonaceous food. Whether this is due to the quality of a ferment which nitro-

genous matters possess, it is not here important to discuss; but the combination of alcohol with these principles, and with a bitter property, gives the most admirable compound which the word has seen, and especially fitted for the cases in which there are general enervation, defective powers of assimilation, and active state of the skin, as in the lassitude and exhaustion of many in hot climates.

Hence, there are certain cases in which alcohol is chiefly called for, and in which spirits of wine may be given quite as usefully as the ordinary compounds; others in which the aromas of fine old wines are of great value; and a third class in which the addition of the nitrogenous digestive agent in ales should be given.

I think it would be to the advantage of our patients if, in cases in which we desire the effect of alcohol, and not the other ingredients found in alcohols—viz., increase in the action of the heart and decrease in the action of the skin—we administered spirits of wine instead of spirits, because by obtaining it during the first hours of distillation, we may obtain nearly a pure alcohol, and by indicating the specific gravity we may at all times know the true amount of the agent which we would employ. Although alcohol varies very greatly in flavor and degrees of purity, and it commonly happens that the kind which is used in the manufacture of spirits is that which passes off in the latter hours of distillation, and contains much fusil oil and free acid, which are very injurious to health. Moreover, as there is a clear difference in the action of alcohol and fine old brandy, we have in alcohol an agent which will effect the two purposes above mentioned, and will at the same time support the respiratory organs.—*London Lancet.*

TREATMENT OF UTERINE INFLAMMATION BY NITRATE OF SILVER AND OTHER SUSTITUTIVE AGENTS.

By E. J. TILT, M. D., M. R. C. P.

In using these agents we apply the general principle of therapeutics to the treatment of inflammatory affections of the womb and its associated organs. The utility of a solution of acetate of lead in inflammatory affections of the skin implies similar utility in inflammatory affections of the vagi-

nal mucus membrane; the utility of solutions of borax and of chlorate of potash in affections of the mouth pointed to their trial as vaginal injections; the utility of sulphate of zinc and nitrate of silver in urethral strictures demonstrated by J. Hunter, Sir E. Home, Lallemand, etc., suggested their employment in uterine catarrh; the sovereign utility of the solid nitrate of silver for the cure of cutaneous ulcerations caused it to be tried in ulcerations of the womb. To whatever mucous membrane these agents are applied, they act in the same way—they substitute a therapeutical irritation, susceptible of being graduated to a morbid irritation, which might uncontrollably compromise the strictures attacked—a temporary irritation to one that tends to become permanent.

In treating of injections, I have already enumerated several agents which act in this way, such as borax, chlorate of potash, acetate of lead, alum, sulphate of zinc, etc. They are generally given largely diluted, but if used in a solid or highly concentrated state, the action of these agents would be analagous to that of two other important agents, nitrate of silver and tincture of iodine, which are called caustics by courtesy, but are no more caustics than tincture of cantharides. I wish it to be clearly understood that I hold these agents sufficient for the surgical treatment of uterine inflammatory diseases in the large majority of cases, and so does Dr. H. Bennett, although it has been stated that we use strong caustices in ordinary cases of uterine disease. In a comparatively small number of instances, the strictures of the womb have been too deeply modified by inflammation or by hyperthropy, and are in so low a state of vitality, that the above named agents are insufficient to bring about the cure of disease. Then I have recourse to another class of substitutive agents, which are undoubted escharotics, for they cause a loss of substance proportionate to the amount of caustic used.—Those caustics induce healthy acute inflammation in the tissues underlying the eschar, and, by judicious management of this healthy inflammatory action, the cure of chronic cases is often induced.

The causes of which I shall treat are, the acid nitrate of mercury, potassa fussa cum calce, potassa caustica, and the actual cautery. At first sight it may seem strange to class together sulphate of zinc and potassa fusa cum calce, but one is justified in doing so, because the substitutive action which I ascribe to a solution of sulphate of zinc is pre-eminently shown in the results of potassa fusa cum calce, which often so

raises the vital endowments of the uterine tissues as to promote rapidly healthy nutritive action in tissues which had been diseased for many years.

Such is my mode of practice, and I am glad to find that it accords to a certain extent with the practice of all whose opinion carries weight, and who, having in vain tried to cure uterine disease by nitrate of silver or milder measures, have recourse to one or the other of the strongest caustics. Dr. Fleetwood Churchill depends on nitric and muriatic acids, and on the acid nitrate of mercury, which is also preferred by Dr. E. Kennedy and by Dr. West; and although this distinguished pathologist considers ulceration of the cervix to be a condition of slight pathological importance, when he has to trace out a plan of treatment for his pupils, he has none other to propose than that long ago carefully laid down by Dr. H. Bennet. The late Dr. Rigby, though adverse to the surgical treatment of uterine affections, admitted that there were certain cases of uterine ulceration requiring the use of potassa fusa or potassa fusacum calce. Dr. H. Bennet prefers potassa fusa cum calce. This is not energetic enough for Professor Simpson, who uses potassa caustica; while the French strongly advocate a remedy older than Hippocrates, the actual cautery.

These comments upon the treatment of uterine inflammation will show that I am an eclectic, and that I use all the valuable agents which I have enumerated in certain cases which I shall specify. Again reminding the reader that I am not writing a treatise, I shall proceed to comment on the use of our principal substitutive agents.

Tincture of Iodine.—It is the ordinary tincture of the Pharmacopœia which I mean, not the caustic tincture. I shall be brief on this agent, having already mentioned it as a revulsive, and having compared it with others then under discussion. Tincture of iodine seems to act as an astringent when slightly applied to the hypertrophied or inflamed surface of the neck of the womb, but as a vesicant if several applications are made at one and the same time, and as a resolutive if re-applied every third or fourth day. It is much less useful than nitrate of silver as a topical application, but it suits better some idiosyncracies, and is well borne in diphtheritical inflammation, when nitrate of silver should not be used. The fact that a solution of iodine can be injected into closed cavities and fistulous passages without severely inflaming them, marks it out as the best liquid to be injected

into the body of the womb, in the very rare cases requiring such treatment; for it has less frequently given rise to the alarming symptoms of peritonitis, which have very often followed the intra-uterine injection of a solution of nitrate of silver. I use one drachm of the tincture to an ounce of distilled water, and inject it by means of an instrument similar to that devised by Mr. Coxeter for injecting fluids into the larynx.

Nitrate of Silver.—"The application of nitrate of silver is a means, under certain circumstances, of subduing external inflammation. Might it not, on this principle, be of service in the treatment of the internal phlegmasia?" Such was the question asked by Dr. Higginbottom in the preface of his admirable little work on "The Lunar Caustic," published in 1826. His question has been answered in the affirmative by a great many eminent practitioners, who have applied nitrate of silver for the cure of inflammatory affection of the mucus membrane of the eyes, ears, mouth, throat, urethra, the intestines, and the rectum. As regards the mucous membrane of the genital orgens, Dr. Jewel, in 1830, strongly advocated its use; and I have no hesitation in saying that this agent is quite as useful in curing the varied inflammatory conditions of the genital organs as in curing those of the skin. It is often necessary to preface the use of nitrate of silver by linseed tea, poppyhead, or other cooling injections, in the same way that Mr. Higginbottom repeatedly inculcates the utility of cold poultices previous to applying nitrate of silver to the inflamed skin. If, after antiphlogistic treatment, the solid nitrate of silver increases too much habitual pains, or causes the ulcerated surface to bleed for two or three days afterwards, it is well to try a solution of from forty to sixty grains of nitrate of silver to an ounce of distilled water. In many cases the solution is sufficient to effect a cure; it gives less pain, but it may be necessary to repeat it every third or fourth day.—Sometimes I use a solution of nitrate of silver containing one ounce of salt to two or three ounces of distilled water, as an application to ulcerated surfaces. Chronic uterine catarrh, or inflammation of the mucus membrane lining the neck of the womb, which has been truly called an open gland pouring out mucus from ten thousand follicles, seems to me the most frequent of all uterine diseases. Without having the slightest abrasion, the mucous membrane lining the neck of the womb and its vaginal surface may be of a dusky, livid hue, tender on being touched, and secreting pus. This condition may last

for years, but it generally leads to more or less extensive denudation of the villi of the uterine mucous membrane, and gives an excoriated appearance to the neck of the womb. Such cases, with or without excoriation, can be cured by the nitrate of silver in solution, used every fourth or fifth day, with the occasional use of the solid nitrate. If the mucous membrane lining the cervix be principally affected, it is often so obstinate as to render the painting of it with solution of little use. The solid nitrate must be freely employed, and when the cervical canal is unusually dilated, I sometimes leave about one-eighth of an inch in the canal; by which it will be clear that, so far as my experience goes, should the stick accidentally break in the cervical canal it need give no alarm. What cannot be removed will cause more pain, some loss of blood, and perhaps even a return of menstruation; but the patient may be repaid for greater suffering by a speedier cure. It has been stated by Nonat that this mode of treatment has caused stricture of the uterine canal in his practice and in that of Richet. I have never met with this accident, and I think its occurrence is to be prevented by the occasional passage of the uterine sound for a few weeks after this severe application.

With regard to the treatment of the various forms of ulceration of the neck of the womb, I can add nothing to what has been so well laid down in Dr. H. Bennet's work. Mr. Higginbottom, whose statements with respect to the action of nitrate of silver deserve the highest consideration, affirms that its action does not extend beyond three days after its application; and it is generally received that it is necessary to repeat the use of this agent so soon as the epithelial pellicle has fallen off, or every third or fourth day. In many instances this is the best way of insuring the most rapid recovery; but I do not recommend the too strict adherence to this precept, as it is often well to leave five, six, or seven days interval between the applications, or we might work as did Penelope, and retard the cure of the case. This, however, is a matter of surgical experience in each individual case.

Whether vaginitis occurs spontaneously or as the result of uterine catarrh, it is best cured by the injection of a solution of nitrate of silver. This is an excellent idea of Dr. Jewel's, but if the solution be sufficiently strong to do good it cannot be safely trusted to the patient. The patient being placed on her back, a small glass speculum should be introduced as far as posssible, and an ordinary glass syringe full of a solution of nitrate of silver, containing forty grains to the ounce,

should be injected. The speculum should then be withdrawn to the vicinity of the vulva, and the fluid should be left in contact from three to five minutes, after which the speculum is to be withdrawn, and the fluid received in a small cup.—Sometimes I apply a speculum of appropriate size, and as I withdraw it I pretty freely touch the vagina with the solid nitrate of silver diluted by chloride of silver, as prepared by Mr. Squire. This is a modification of a plan which is recommended by Ricord.

I recommend these injections where there is evidence of inflammation of the womb, with excoriations of its cervix, in virgins in whom the integrity of the hymen prevents the introduction of a moderate-sized speculum. This plan should be first tried before forcibly dilating or incising the hymen—an operation which is very rarely required. I have frequently made these injections in many cases, and I do not once remember having traced menorrhagia to their administration. I mention this as it seems to have often occurred in the practice of Dr. Fleetwood Churchill. So many serious accidents have followed the injection of the solution of nitrate of silver into the body of the womb, that I prefer using tincture of iodine in solution whenever intra-uterine injections may be required. In very rare cases of chronic internal metritis it may even be necessary to apply the solid nitrate of silver to the internal surface of the body of the womb, as well as to adopt other modes of treatment, for an account of which I refer the reader to my papers on the Treatment of Internal Metritis.*

In follicular inflammation of the labia, in eczema and prurigo pudendum, or puritus both external and vaginal, a piece of cotton-wool should be soaked in the solution of nitrate of silver, and carefully rubbed for two or three minutes over the diseased portions of the skin and mucous membrane. I can speak with confidence of this plan, for I have lately cured several patients who have been suffering in this way for four, eight, and thirty years. When cases have lasted so long the pudendal skin looks and feels like parchment. It was so in the case of a lady in whom the disease had lasted thirty years, and I first rubbed in the solution every day, then every other day, then every fourth and fifth day, until the skin became soft and pliable, and the sleep was no longer disturbed by darts of pain flashing along the nerves. This patient was

* The Lancet, 1853, vol. ii.

cured in three months, and has had no relapse during the last year.

I trust I have said enough in praise of nitrate of silver; but in many forms of uterine inflammation much more severe agents are required to restore the womb to a healthy state. This fact is admitted by so many authorities at home, in America, or in foreign countreis, that I am surprised to find the contrary asserted by Dr. Meigs and Dr. Tyler Smith. After describing the evil effects of caustics in the treatment of uterine disease, the latter pathologist, in his work on "Leucorrhœa," (p. 203,) gives as his opinion that "there is no good which can be effected by the more powerful caustics which cannot be accomplished by the nitrate of silver, or by other means. It is true that by the prolonged application of the nitrate of silver loss of substance may be caused; but this is far less likely to occur with lunar caustic than with the more powerful escharotics. It is also true that some practitioners apply the more violent caustics so lightly that they do not exceed the milder action of the solid nitrate of silver; but in such cases it would be quite as well to use the safer remedy where a caustic is required." And at p. 206, "In applying the nitrate of silver, the aim should be not to produce any slough or loss of substance." Thus it is clearly stated that the slight application of the strong caustics is tantamount to the full action of the nitrate of silver in like cases of uterine disease.

My experience, on the contrary, teaches me that nitrate of silver is no more a caustic than tincture of cantharides, as Mr. Higginbottom has long ago asserted. The distinction that Dr. Meigs draws between the antiphlogistic touches and the escharotic action of nitrate of silver, does not bear examination. Use it as you may the nitrate of silver does not cauterize. Leave it in the neck of the womb, it will cause more pain, loss of blood, and subsequent discharge, but no destruction of tissue, unless coagulate mucus mixed up with epithelial scales and insoluble chlorides of silver can be called such. Even when applied to a fungous ulcer, the slight loss of substance is rather due to the friction of a hard body on a pulpy than to the chemical combination of the neutral salt and the diseased tissues. A densely hyperthropied neck of the womb might be whitened with the solid nitrate of silver every fourth day until doomsday, without much reducing its bulk. Indeed I have seen such a plan of treatment injudiciously continue for a year or longer in a case of hysteralgia, the neck of the womb

being healthy and of an average size, and the effects were rather astringent than caustic, condensing the tissues, narrowing the cervical canal, and rendering its dilitation necessary and difficult. Thus, while nitrate of silver may be repeatedly applied without inducing a loss of substance, the slightest application of the potassa fusa to the neck of the womb produces an evident loss of substance; and, therefore, the two agents, however applied, produce totally different effects in similar cases. This is a question of surgical therapeutics which can be decided by any experienced surgeon. Writing on the treatment of stricture caused by gristly thickening of the urethral mucous membrane, Mr. Wade records his twenty-five years' experience of the comparative advantages of nitrate of silver and of potassa fusa, and he states: "I cannot let this opportunity pass without again calling attention to the fact, that the effects of the argenti nitras and of the potassa fusa admit of no comparison, as they are totally dissimilar; that the former, when freely used, from its tendency to cause adhesive inflammation, has often been found to increase the urethral obstructions, whilst the remarkable solvent powers of the latter have no such tendency."

The too free use of nitrate of silver to the inodular tissues of the urethra causes urethral stricture, as the too free use of the same agent to the cervical canal causes stricture of the neck of the womb, but without loss of substance. Indeed, if the whole range of diseases in which nitrate of silver is now used be passed in review, it will be found that it always acts by its dynamic, astringent, and antiphlogistic properties; whereas escharotics can only raise the standard of vitality of any given tissues by the previous destruction of their superimposed surface. I maintain, on the contrary, that there is one good to be done with the more powerful caustics which cannot be accomplished with the nitrate of silver; that is, to shorten the treatment of many cases in which it is at first judicious to try it. Ulceration of the neck of the womb, on a hypertrophic basis, may doubtless be sometimes cured by the use of nitrate of silver, but the treatment might be indefinitely prolonged; whereas it can be very much shortened by one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. When the inner cervix is chronically inflamed, nitrate of silver may enable us to effect a cure; but with that agent, however applied, cures are sometimes so tedious that it is well to resort to one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. In fungous and varicose

ulceration the nitrate of silver causes the surface to bleed profusely, and does more harm than good; whereas I find that in these cases the acid nitrate of mercury and the actual cautery stop the bleeding and promote a cure. I think it right to be sparing of caustics to the neck of the womb in pregnant patients; but I have seen cases similar to those described by Dr. Bennet in which it was necessary to stop an abundant purulent and bloody discharges from a large varicose ulcer, and I have done so with the acid nitrate of mercury after doing more harm than good with the nitrate of silver. So little are caustic agents and nitrate of silver interchangeable substances or thereapeutical equivalents, that I find nitrate of silver in some cases to be positively poisonous, while potassa fusa c. calce conduces to recovery. In diphtheritic inflammation of the neck of the womb and of the vagina, nitrate of silver acts as a poison. In a case now under treatment there is a small patch of false membrane on the posterior lip of the os uteri, and around it are numerous ulcerations. Were I to touch them with nitrate of silver they would soon be covered with false membranes. Tincture of iodine would not produce this effect, neither would the potassa fusa c. calce; these, therefore, are the best means of curing this tedious complaint, of which I have seen two instances and Dr. Bennet three, and he would endorse what I affirm of such cases. Occasionally we met with cases like two I am now attending, in which an extensive superficial excoriation of the neck of the womb bleeds profusely, and for the following two days, even when only touched with the solution of nitrate of silver, which likewise makes the sore more angry. In such cases as these I have nearly effected a cure by dressing the wound with tincture of iodine or the acid nitrate of mercury.

The profession is more and more convinced of the great utility of caustics in many diseases; were it otherwise, surgery would be deprived of a valuable remedy, and the obstetric art robbed of the only means of curing the most distressing cases of uterine inflammation. Patients would thus have to drag on from year to year their weary load of misery, with the only hope that the cessation of menstruation, by putting an end to the physiological liability of the womb might also check its liability to inflammation.—*London Lancet.*

From the *Journal of Materia Medica* we extract the following collection of convenient formulæ:

FORMULA FOR THE ADMINISTRATION OF PROPYLAMINE.

℞ Propylamini Chloridi.....gr. xxxvj.
Sacchari Pul.....℥ ij.
Aq. Menthæ Pip.....f℥ vj. M.
ft. solutio.

S. Dose.—A tablespoonful every two hours.

ASTRINGENT WASH FOR THE GUMS.

℞ Acid Tannici..... 8 parts.
Alcohol (86°).....120 "
Tinct. Benzoës..... 8 "
Essent. Menth..... 2 "

M. and filter. Mix a few drops of this liquid with water, and wash the gums two or three times a day.—*Dental Cosmos.*

McLEAN'S NEURALGIC LINIMENT.

℞ Extr. Belladonnæ.....4 grains.
Aq. Ammoniæ.....6 fl. ounces.
Ol. Terbinth.....½ "
Ol. Olivæ.....½ "
Tinct. Opii.....2 "

Apply during the paroxysm.—*Druggist's Circular.*

IODIZED LIQUID FOR DISINFECTING WOUNDS.

Dr. Marechal, of Calve, prescribes:

Iodine.....Ffteen and a half grains.
Iodide of potassium...Thirty-one "
Distilled water.....Three pints.

Apply compresses soaked in this liquid to the wounds, changing them several times a day, or, without changing the compresses, keep them saturated with the iodized solution.—*Druggist*, from *Répert. de Pharm.*

STEARATE OF IRON IN CHANCRE.

Ricord has employed, for seven months, in the Hospital du Midi, an ointment and plaster of stearate of iron, as a dressing for soft or phagedenic chancres. They have been of great service in all cases where the phagedenic action resisted the numerous means usually employed. M. Braitte, pharmaceutist of the hospital, gives the following formulæ for these preparations:

Ointment of Stearate of Iron.—Take sulphate of iron, 500 grammes; Marseilles soap, 1000 grammes. Dissolve the sulphate of iron in about 1500 grammes of water, and the soap in an equal quantity of water. On pouring one solution into the other, a whitish green precipitate is obtained, which is dried, and then melted at a moderate temperature of 80°–84° R. Add to the melted mass, on cooling, 40 per cent. of essence of lavender, and stir it constantly until it becomes perfectly cold.

Sparadrap of Stearate of Iron—Braitte's Plaster.—Take of the stearate of iron, obtained by the process directed above, q. s.; melt it at a moderate temperature, and spread it on muslin like the ordinary sparadrap.—*Journal de Pharm., Savannah Jour. Med.*

THOMPSON'S EYE-WATER.

℞ Sulphate of copper.....Ten grains.
Sulphate of zinc.....Two scruples.
Rose water.....Two pints.
Tinct. of saffron, Tinct. of camphor, each.....Half an ounce.

Mix and filter.—*Druggist's Circular.*

OINTMENT FOR WARTS.

℞ Chromate of potass.....Two grains.
Lard.....One drachm.

Mix. Rub the warts with it twice a day, for thsee or four weeks.—*Druggist*, from *Bull. de Therap.*

GLYCEROLE OF ZINC.

℞ Sulphate of Zinc.....Two drachms.
Glycerine.....Two ounces.

Triturate together until the sulphate is completely dissolved. A good application for external hæmorrhoids, brushed over with a camel's hair brush.—*Dr. C. A. Hartmun, Cleveland.*

DYSPEPTIC BITTERS.

℞ Gentian root, bruised.....Two ounces.
Orange Peel..... " "
Quassa, rasped.....Half ounce.
Cardamon seed, bruised,..... " "
Caraway " ..... " "
Cloves " .....Two drams.
Diluted alcohol.....One gallon.

Mix, and prepare according to art.—*Druggists Circular.*

BROWN'S BRONCHIAL TROCHES.

℞ Powdered extract liquorice.....1 pound.
Powdered sugar.....1½ pounds.
Powdered cubebs.....4 ounces.
Powdered gum arabic.....4 ounces.
Extract of conium.....1 ounce.
—*Druggists Circular.*

CITRATE OINTMENT MADE WITH BEAR'S OIL.

Mr. Wm. Pr. Creecy, of Vicksburg, Miss., sent a specimen of this preparation to the editor of the *American Journal of Pharmacy*, who publishes the recipe:

Mercury..... ℥ j.
Nitric acid.....f ℥ xiv.
Bear's oil.....f ℥ xiij.

Heat the oil in a porcelain capsule to 200 deg. F., and add the solution of nitrate of mercury gradually, stirring continuously till effervescence ceases, and frequently till cool, with a glass or porcelain spatula.

PRESCRIPTION FOR CONSUMPTION.

Dr. C. T. Horton (*Baltimore Journal of Medicine*), uses the following prescription in the treatment of consumption, Bronchitis, etc.:

℞ Etherial tincture of Indian Hemp....½ pint.
Extract of liquorice.....½ lb. (Troy?)
Carbonate of potassa.....½ "
Warm water.....1 gallon.

The dose of this is a table-spoonful three times a day, gradually increased to two. The ethereal tincture is obtained by dissolving two ounces of the alcoholic extract of hemp in a pint of sulphuric ether.

EMBROCATION FOR INFLAMMATION OF THE MAMMÆ.

Dr. E. M. Hale recommends the following embrocation for inflammation of the mammæ:

℞ Fluid extract of aconite.....1½ ounces.
" " phytolacca.....1 ounce.
Iodine potassium.....1 dram.
Warm water.....1 pint.

Wet linen compresses and apply constantly. No application with which I am acquainted will so surely prevent tumors of the mammæ from taking on the suppurative process. Even if suppuration have taken place, it resolves the indurations, and relieves the pain.—*Med. and Surg. Reporter.*

LEAD IN THE TREATMENT OF PHTHISIS.

Remedies for phthisis, if recommended with the least show of authority, are always eagerly sought for. The number of cases of recovery from tubercular disorganization of the lungs is sufficient to keep alive in the minds of the professional, as well as unprofessional public, the hope that some cure may at last be found for it. By the London *Lancet* for August 17th, we see that M. Beau places some confidence, at the present time, in the use of lead in the treatment of this disease. Its Paris correspondent writes, in speaking of the last clinical lecture of M. Beau—

"Phthisis," he said," "has been cured by all sorts of methods and in all sorts of ways; the fact being that, as this malady depends upon the reciprocal action of a diathesis and of globular anæmia, the remedy which is able to oppose the progress of the latter condition may not only prevent the disease from making further inroads on the system, but also contribute to the healing of such lesions as already exist. My intention is not certainly to enumerate all the means for treating consumption which have in turn been extolled and employed against this malady; you will find them detailed at length in the treatise of Baumes, of Montpellier, published in 1805. I shall limit myself to a few." After mentioning sea voyages, horse exercise, southern climates, emetics, chloride of sodium, asses' milk, Iceland moss, conserve of roses, quinine, fir-sprouts, watercress, sulphur, sulphureous waters, cod-liver oil, iodine, turtle-soup, snail-broth, oysters, strawberries in great quantities, hydrotherapy, the hypophosphites, and steel, the lecturer at last arrived at his favorite remedy—lead. "The employment of lead," he said, "in the treatment of tubercular consumption is not new. The idea is a borrowed one. What is new, is the manner in which I administer it, and in which I have understood its action. I must first tell you how I was in the onset induced to employ it. Starting from the theory, which I hold in common with many other observers, that the development of tubercle is favored by the anæmic state, I had been struck by the fact that the workmen employed in establishments where lead is much handled, although anæmic and cachetic to the last degree, very rarely present symptoms of tubercular deposit in the lungs.

During a period of six or seven years at the Hospital Cochin, amongst the many patients whom I treated for lead poisoning, I never saw a single case of phthisis. Once only, in the lungs of a house-painter, I met with tubercle; but I subsequently ascertained that this man had never had any of the signs of the saturine affection. I went a step further, and inquired into the diseases usually met with in the trades habitually working with lead, and found that cough among operatives of this class was of rare occurrence. I began then to think within myself that if lead could prevent, it might, also very possibly cure, phthisis, and was much tempted to make the experiment, but waited for further evidence, and was presently emboldened by an accidental occurrence. Shortly after my entry into the service of the Charite, a man, affected with lead colic, fell under my observation. On examining his chest I found evident symptoms of tubercular deposit; and on inquiry, ascertained that the patient had been consumptive for years. Finding himself without work, this man had taken a job at the lead works at Clichy, and there had caught his colic. He assured me that since his seizure both cough and expectoration had diminished; in fact, so much so as to have made him think it useless to direct my attention to the state of his lungs. He left the hospital some time afterwards, cured of his colic, and with considerable improvement of the pulmonary symptoms. In the case of a second patient, who shortly afterwards entered my wards, I was informed that the signs of consumption, held in abeyance during repeated attacks of lead colic, had reappeared each time that the latter malady had been removed. I endeavored, on the verification of this fact in my hospital service, to reproduce the saturnine when the phthisis seemed inclined to gain ground, and succeeded beyond my expectations in arresting its progress on several occasions. Such were the incidents which led me to the adoption of my present method of treatment, and *the results I have obtained are not of a nature to justify me in laying the method aside.* The following is the manner in which I employ this drug: I begin by administering an emetic, in order to arouse the stomach from the state of torpor which it is so common to meet with, either as cause or effect, in tubercular phthisis. After the lapse of a week or thereabouts, I commence the lead (I prefer the carbonate, as being better borne by the stomach than the acetate), in pills of two grains each. The dose is taken at first once a day, then twice, and so on, until six pills, or twelve grains of

the lead, are swallowed within the course of twenty-four hours; the best time for administration being before each repast, as the drug is that moment less likely to cause vomiting. This treatment must be continued until a sufficient saturnine impregnation has taken place, a generous diet being allowed the patient at the same time."

M. Beau has added an appendix to his two former lectures during the course of the week, which, as it completes his previous observations on the *lead* treatment of phthisis, I think I may interest your readers by recording.

"With regard to the first effects," he says, "noticeable on the employment of lead in dealing with consumption, the most favorable is the amelioration of the cough and expectoration. Sometimes at the end of two, at others at the end of eight or ten days (the difference of time depending on individual peculiarity), the cough, from being incessant, becomes less frequent, and allows the sufferer some respite, enabling him to sleep. The expectoration, from being abundant and purulent in nature, diminishes and becomes less copious, and of a mucous character. This is not all; you will remember one particular character of the tubercular sputum, long ago recognized by Fouquier—namely, that in pasing from the larynx to the mouth, it almost invariably, by virtue of a specially irritating property it possesses, irritates the pharynx, and produces an effort of vomiting. Another mark of the progress and success of the saturnine treatment, is precisely the cessation of this retching during expectoration. At a variable period, also, and consequent upon the amelioration in the cough and sputa, the physical signs furnished by auscultation likewise bear testimony to diminished activity in the pulmonary suppuration. The subclavicular pains diminish, and can hardly be recalled by pressure with the finger, and the nocturnal hectic fever very generally disappears entirely. I say the *nocturnal* fever advisedly; for you know the grave prognostic which attaches to the continued form of fever when occurring in this disease. With regard to the *physiological* effects of lead on the system, the first remarked is, for the most part, loss of appetite. There are, however, certain cases in which the administration of this drug seems rather to excite than to repress the digestive functions and desire for food, and such are certainly the most favorable; for here, in addition to the advantages afforded by the special action of the medicine, we have the concurrence of an active nutrition. Moreover, it is to be noted, that those patients in whom the

functions of the stomach remain undisturbed, enjoy perfect immunity from the poisonous effects of the remedy. Such cases are, however, too rare to be counted on. In addition to the loss of appetite, gastralgia very generally supervenes, and occasionally, but rarely, vomiting, dry cough, and dyspnœa, the latter symptoms being exclusively of a gastric origin, and unconnected with increase of morbid action in the lung.—The colic produced by the administration of lead for a therapeutical purpose differs from that witnessed in workmen who have incurred saturnine intoxication in the exercise of their trade, in one important particular—namely, that whilst in the first diarrhœa is very generally induced, in the second case obstinate constipation for the most part exists. The blue line on the gums is another effect of the lead treatment, and appears from the tenth to the fifteenth day. Some patients there are, however, who, though presenting the other indication of saturnine saturation, are without this particular sign of constitutional affection. I believe that the blue line is only seen when there is some superficial erosion or ulceration of the margins of the gum. The predominating symptom of the therapeutical intoxication and that which is the most constant of all, is pain occurring in certain portions of the body. This pain, which appears at variable periods during the treatment, as early sometimes as the second, and rarely later than the tenth day, is occasionally present in the trunk, but mostly in the arms and legs. It is either of a shooting, darting description, or may resemble the pressure of a heavy weight, or the constriction of a metalic ring round the limbs. The physician at the same time must be careful to distinguish between the pains symptomatic of phthisis and those induced by the treatment." M. Beau likewise informs us that he never witnessed either epilepsy or those other brain symptoms occasionally met with amongst lead-workers, and ends by saying that he believes the cases of phthisis are very rare in which a saturnine treatment will not be found useful in either arresting or retarding the progress of the disease.

EDITORIAL.

The Pathology and Treatment of Venereal Diseases. By reeman J. Bumstead, M. D., New York. Blanchard & Lea, Philadelphia.—On the announcement of this work, we were prepared for an addition to the catalogue of eminently useless works, but on its reception and perusal we return to the authors and publishers our most hearty thanks, for by far the most valuable contribution to this particular branch of practice that has seen the light within the last score of years.

The time worn notions and methods of practice contained in most of the so-called standard treatises upon this subject, every observant practitioner must have seen to be wholly inadequate and imperfect. We hesitate little in saying that no medical man, with a fair average of practice in this class of diseases, has found it possible to accept either the principles or treatment laid down in the vast majority of works on the subject—he certainly would have little cause to plume himself upon his success were he to attempt any such reliance.

The present work is brought up to the level of the time, by a clear sighted observer, of copious reading and large practical experience. Many of his views will strike those who have merely a book-knowledge of the subject as novel and perhaps as incredible, but experts will yield most of them immediate assent. Dr. Bumstead epitomizes in his preface the most important topics as follows:

"*The distinct nature of the two species of Chancre;* the innocuousness of the secretion of the infecting chancre, when applied to the person bearing it, or to any individual affected with the syphilitic diathesis; the removal of certain obstacles to a general belief in the contagiousness of secondary lesions; the fact that syphilis pursues the same course, whether derived from a primary or secondary symptom, commencing in

either case with a chancre at the point where the virus entered the system; the definite period of incubation of the true chancre, and of general manifestations; the inefficiency of the abortive treatment of syphilis; and the phenomena of syphilization and their correct interpretation."

To say that the author has given a perspicuous and complete elucidation of all these remarkable ideas is not beyond what the book warrants. Yet those of our readers who have not kept pace with the investigations of the last decade upon this subject, will be a little startled at reading of the corroding venereal ulcer,—phagædenic perhaps—as totally distinct in nature from true syphilis. But the author to our mind proves, so far as can be done in such subjects, "the quality of syphilis." Myriad enigmas are unravelled by the process of developement of this idea. Hereafter we must recognize "the Chancroid and its Complications" as quite a different disease from the true hard, infecting chancre, "the initiatory lesion of acquired syphilis."

The first part of the work, which treats of "Gonorrhœa and its Complication," establishes the non-identity of Gonorrhœa and Syphilis; advocates the origination of true Gonorrhœa from the secretions of women not specifically diseased; the occurrence of gonorrhœal symptoms and even contagious discharge in the male without previous coitus; and we must confess upon these latter points indulges in latitudinarian views which are largely at variance with many preconceived opinions. It seems remarkable that so many escape infection.

Irrespective of the novelties in opinion contained in Dr. Bumstead's book, many of which may challenge discussion, his clear and accurate descriptions of the various forms of venereal disease, and especially the methods of treatment he proposes are worthy of the highest encomium. In these respects it is better adapted for the assistance of the every day practitioner than any other with which we are acquainted.—In variety of methods proposed, in minuteness of direction, guided by careful discrimination of varying forms and com-

plications, we write down the book as unsurpassed. It is a work which should be in the possession of every practitioner.

The Morbid Effects of the Retention in the Blood of the Elements of the Urinary Secretion. By W. W. Morland, M. D. Fiske Fund Prize Essay. Blanchard & Lea, 1861, pp. 83.—This monograph, first presented to the Rhode Island Medical Society as a prize essay, then published in the American Medical Journal, was believed worthy of appearing in a more permanent shape, suitable for the library and reference, and the consequence is its appearance in thin octavo in the usual neat style of Blanchard & Lea. It is a valuable *resume* of observations upon this deeply interesting topic both original and collated. Whilst the greater proportion of the matter is to be found scattered throughout monographs and various systematic treatises, the author has done the profession essential service by bringing it together in compact form, and by careful study has separated much of the unreliable, or worse, which has been permitted to confuse the student. He discusses first the normal constituents of the secretion and then respectively the effects of each when unduly retained.—Nineteen pages are thus devoted to the retention of Urea;—about twenty pages to that of Uric Acid; six pages to Creatine, Creatinine and Hippuric acid; the same to Chlorine and Chloride of Sodium; four to Ammonia; and three to Iron and Uræmatine.

The treatise although brief, is quite complete, and no educatad physician can dispense with the information contained. Time has been when the stomach was considered the seat of about all diseases; the liver also has been charged with most of the disorders to which flesh is heir; but the kidneys, considering the well known importance of their functions, it is safe to say have not as yet attracted professional attention to a suitable extent. How many cases of convulsions, puerperal and other; how many cases of congestion of the brain and

other organs, have owed their presence and fatal result to lesion or failure in action of the renal organs so little noticed, so little studied! We trust that general perusal of this essay may recall the attention of the profession to the fact that disease of these organs is not infrequent in occurrence and is always dangerous.

Physician's Diary and Visiting List for 1862. Lindsay & Blakiston. From W. B. Keen & Co., Lake Street. It is scarcely necessary to more than announce the issue of this now established medical "institution"—about every physician being familiar with its convenient character and arrangement.

Attention is directed by an Eastern cotemporary to a few omissions which it would be well for each purchaser to insert with his own pen. Among the list of antidotes *Tannin* should be recognized as antidotal to *Strychnia*, and the effects of *Liquor Potassæ* in neutralizing the narcotic effects of Belladonna should not be forgotten. In directions for restoration of suspended animation, it is also suggested that the Sylvester method has been again revived in preference to Marshall Hall's, which for a time had superseded it, and to this also might well be super-added the means recommended for the restoration of persons under the influence of Strychnina.

Elmer's Hand-Book of Practice for 1862, is received from the publishers, and it is filled as in former years, with matters of convenience and interest to every practitioner of medicine. Those who have once made use of it will hardly content themselves without it. It may be procured at S. C. Griggs & Co's.

Map of Virginia.—Mr. James T. Lloyd, the enterprising publisher, whose map of the Southern States we noticed in lithe last issue of the Journal, has laid us under renewed obgations by forwarding the official map of the eastern half of the State of Virginia to be soon followed, as he promises, by

that of the Western half. It is the only full, complete and authoritative map published, and is beautifully executed.—We cordially recommend it to all interested, (and who is not?), in the stirring events now transpiring on the "sacred soil."

Treatment of Fractures of the Long Bones, by simple Extension. By John Swinburne, M. D., one of the Surgeons of the Albany City Hospital. From the author. This pamphlet of fifty pages is a reprint of a paper read by Dr Swinburne, before the New York State Medical Society at their last meeting, and which was briefly noticed in this Journal soon after. It is now put in a more accessible and permanent form, illustrated with appropriate diagrams, and we find bears re-reading excellently well. The author sustains his positions with great vigor and force. The importance of the subject demands the general attention of the profession. The simplicity of the apparatus recommended is not the least of its merits, although general adoption of the practice would sadly interfere with the profits of the splint makers, and rob the walls of the physician's office of the formidable array of paraphernalia with which after a few years of practice they are prone to be encumbered. Dr. Swinburne depends upon nature to supply splints and compresses in the shape of muscles, fasciæ, integument, etc. By his methods he claims that all varieties of fracture of the long bones can be as well treated in a country farm house, miles away from the splint makers, the carvers and moulders as in the best appointed hospital with its almost endless variety of instrumental devices.—In these days of prosecutions for *malapraxis*, every surgeon ought carefully to investigate every systematic method of treatment of fractures which promises exemption from deformities which will sometimes occur, notwithstanding employment of the approved methods heretofore in vogue.

Report of Committee of the Boston Society for Medical Improvement on the alleged dangers which accompany the Inhalation of the vapor of Sulphuric Ether.—Boston is still haunted with the ghost of the Letheon—the "hub" is still exercised in perpetual revolution about anæsthesia, its pet child, though it found its advent to the amphitheatric atmosphere in the questionable guise of a secret compound, under the joint and several proprietorship of Dentist Morton, of unhappy fame, and Prof. Jackson, of large chemical and Lake Superior experiences. The report culminates as follows :

The general conclusions which have been arrived at by your Committee may be summed up as follows:

1st. The ultimate effects of all anæsthetics show that they are depressing agents. This is indicated both by their symptoms and by the results of experiments. No anæsthetic should therefore be used carelessly, nor can it be administered without risk by an incompetent person.

2d. It is now widely conceded, both in this country and in Europe, that sulphuric ether is safer than any other anæsthetic, and this conviction is gradually gaining ground.

3d. Proper precautions being taken, sulphuric ether will produce entire insensibility in all cases, and no anæsthetic requires so few precautions in its use.

4th. There is no recorded case of death, known to the Committee, attributed to sulphuric ether, which cannot be explained on some other ground equally plausible, or in which, if it were possible to repeat the experiment, insensibility could not have been produced and death avoided. This cannot be said of chloroform.

5th. In view of all these facts, the use of ether in armies, to the extent which its bulk will permit, ought to be obligary, at least in a moral point of view.

6th. The advantages of chloroform are exclusively those of convenience. Its dangers are not averted by its admixture with sulphuric ether in any proportions. The combination of these two agents cannot be too strongly denounced as a treacherous and dangerous compound. Chloric ether, being a solution of chloroform in alcohol, merits the same condemnation.

It is clear that Boston cannot abide chloroform, although Dr. C. T. Jackson, one of the Committee, permits under qua-

si protest the use of a mixture of four parts ether and one part chloroform, as more convenient from lessened bulk for army purposes. We apprehend that notwithstanding the labored argumentation of the Committee that chloroform will still maintain its complete ascendency in general and army practice, as we most steadfastly believe it ought.—That the proposed mixture with ether secures no real advantage save a more gradual introduction of the chloroform into the system, a result which can more readily and pleasantly be secured by appropriate manner of exhibition. That in a large proportion of cases anæsthesia cannot be secured by ether without great expenditure of time, distress to patients, annoyance to attendants; excessive amounts of the vapor;—local irritation of the respiratory passages, rarely experienced from chloroform; a disordered state of the nervous system which retards recovery in a marked degree, and finally when anæsthesia is secured the danger from ether is no less than that from chloroform. An analysis of the real causes of reported death from chloroform according to the methods adopted by our Boston friends with reference to those reported from ether, would unquestionably largely diminish the proportion supposed attributable to the anæsthetic. The *post hoc ergo propter hoc* argument has been admitted to a most unreasonable extent. Before the introduction of any sort of anæsthetics surgical patients occasionally died in the most unaccountable manner, after comparatively slight operations.—All such cases are now incontinently charged upon the anæsthetic employed. But even with this disadvantage, anæsthetics have steadily urged their way into general use, and chloroform ranks the column. We opine that the present onslaught will not materially lessen the confidence of the profession in its right to the position.

Quinine as a Prophylactic in Malarious Diseases.—Medicine in several respects is quite like theology. It has been complained that all creeds and opinions can prove themselves

orthodox, by judiciously selected texts from the bible; and so vast a number of medical reasoners can prove their positions right, to their own satisfaction at least, by a series of facts which everywhere are floating loosely in their neighborhood.

Just now the whole nation is agog about the war, and a great number of professional gentlemen with the rest are anxious to do something for the army. Prominently among the things proposed is that the grand army as it moves southward, shall be guarded from the malaria which does there abound, by daily ingestion by each individual of some five or more grains of quinine, and true to the method of reasoning suggested above, abundant instances are adduced where quinine has been in like manner taken as prophylactic with satisfactory results.

Let us look at the matter in an economical point of view at the outset. Of the army of five hundred regiments, it is a moderate estimate that one half will, if the war continues, be moved into the realms of Dixie and malaria, so that the prophylactic will be in daily requisition. Five grains to each person connected with a regiment, not including camp followers, teamsters, etc., will involve the use of, (in round numbers) ten ounces of quinine, or more exactly, about eleven of the ordinary ounce bottles, or for the two hundred and fifty regiments requiring its use, two thousand seven hundred and fifty bottles *per diem!* But discard seven hundred and fifty bottles for failures in exhibition, hospital patients, recusants, spiritualists, homœopathists, etc., and there still remains a nett 2000 bottles of quinine with all its well known imperfections on its head, to be purchased by the Government to be forced down the throats of our brave soldiery, *nolens volens.* And this to be continued eight or at least six months in the year—say three hundred and sixty thousand bottles. At the necessarily enhanced price of the article, the cost to the Government would fall little short of a Million of Dollars. Such an expenditure is not lightly to be made, to say the least of it.

It is scarcely more than a dozen or fifteen years since the doctrine was largely entertained in the malarious regions of the west that malaria penetrated and pervaded all things as a subtle poison, that it was held in solution in the water, suspended in the atmosphere, lurked in the finest roast of meat, and laid in ambush in the wholesomest looking loaf. All constitutions were impressed by it, and all diseases modified by it. To this wholesale assumption another was brought as a fellow, that Quina is the antidote to malaria wherever concealed and however manifesting its noxious influence.—The practical result was that all the adults took quina with their morning coffee, and the children with their bread and milk. History records its immense consumption and consequent enormous price. The writer has taken it daily for months in succession, with frequent recurring chills notwithstanding, until thirty grains became the ordinary and necessary anti-periodic dose. Scores and hundreds of western practitioners have seen its eventual failure as a prophylactic, and the rapid tolerance established. Quina is still largely and generally used, but with discrimination and judgment, and not under the guidance of the malarial and antidotal dogma. The rule now is Quina for the emergency—the paroxysmal development—other tonics and regimen for prophylaxis. The best of all prophylactics is good health, to be maintained by appropriate hygienic measures. So long as good health is present, there is little danger of attack by any of the multiform varieties of so called malarious disease. But let the causes of debility operate, and during the hours of depressionthe ague and its congeners are potent for evil. Comfortable clothing, dry feet, regular and sufficient sleep under shelter, good digestible food regularly eaten, a pint of good coffee both before and after standing guard; judicious medical attention to the condition of the digestive organs, and to occasional diseases—these and similar obvious methods will prevent more outbreaks of malarious disorder, than any mere medical prophylactic. Does not the medical profession yet

see that the larger portion of its duty is not exhausted in inventing new drugs or the revival of obsolete methods of exhibition of old medicines?

Ethical.—An intelligent and respectable medical gentleman, whose diploma was received from one of our best Colleges, and whose claims to due professional recognition are further endorsed by letters from such eminent gentlemen as Prof. Pope, of St. Louis, has been for some time in reputable practice in this city. Somewhat startled by the peculiar tactics of a well known apostle of medical elevation and reform among us, he addresses to this journal a communication exhibiting the facts in a case of *consultation* (!) with said apostle, upon the 25th of October last. He somewhat mildly requests to know whether the apostolic course "is in accordance with the rules of Medical Ethics in this city—that it is not in conformity with Christian feeling, I am well aware."

The gist of the matter is that the apostle offensively ignored the family attendant, and insisted upon taking the case into his own hands, it being an obstetrical one, probably requiring, *to save the apostolic time*, instrumental interference. To obviate the degradation of a wrangle in the presence of the patient and friends, our correspondent, moved by the natural instincts of a gentleman, retired, leaving the apostle "master of the situation." He now appeals to the profession through our columns.

We prefer not to publish the communication, but present the facts as another leaf from the illustrated chronicles of medical elevation and reform. So many of the profession have submitted tamely to similar treatment from the same apostle, that we have lost faith in any general action. Our advice is, here and elsewhere: Never indulge in wrangling for right professional recognition in the chamber or house of the sick—it is unworthy of you as a gentleman; but, when next you meet the offender, compel him to apologize as becomes a gentleman; or, if he will not—we have no hopes of you, unless your thumb and forefinger become acquainted with his nose. *Verb. Sap.*

Hydrochlorate of Ammonia.—There is a remarkable similarity in the general effects of this salt and the Chlorate of Potassa. The Germans, especially, have long placed an estimate upon it as an alterative, which has surprised those who have not had considerable experience in its use. Lotions of varying degrees of strength of solution may, in the large proportion of cases, be advantageously substituted for the more expensive stimulating liniments usually directed. It thus forms a cheap and efficient rubefacient and discutient, well adapted for prescription in general pretice. In many forms of cutaneous disease, characterized by temporary improvement under the application of local remedies of a stimulating nature, it is particularly beneficial. Thus it is especially useful, both exhibited internally and employed externally, in connection with the arsenicals in treatment of original squamous affections, and where, in other varieties of tegumentary eruption, the furfuraceous surface is presented. Acne is often well controlled by its local application. As a discutient of slow glandular enlargements, it may rank with or next to Iodine, and has the advantage that it does not discolor the part of application.

As an alterative, liquefacient, resolvent, or promovent of cell and tissue metamorphosis, it is worthy of the high rank which our German confreres assign it—ordinarily improving digestion and renovating the secretions in a marked degree. Western practitioners, who have had much experience with it, given in full doses, in combination with Quina, assert that the system is left in a much better condition than when the latter is given singly, and that the necessity for administration of mercurial and other cathartics is very materially lessened or altogether removed.

The same peculiarities fit it for valuable exhibition in many obscure neuroses, where defective irregular innervation is the prominent symptom. We beg leave to recall the attention of the profession to this old remedy, as well worthy more frequent trial than it now receives, sensible, as we are, that, under judicious use, it will by no means as frequently disappoint in result as many newer and more fashionable medicines.

The Army Examining Board.—We are gratified at ascertaining that two of the members of the Examining Board, whose names we have not at hand, have been appointed Brigade Surgeons. The remaining three, it is announced,

are appointed to the volunteer service of this State, with the rank of Majors. It is understood that the Legislature, during its next session, will legalize this appointment by the Governor, it being supposed to be the most economical method of providing for the payment of the Board. We regret to hear that the gentlemen composing the Board were somewhat annoyed at some remarks of this journal, in a previous issue; but congratulate ourselves that the appointment received from their gubernatorial patron may console them for such merely cutaneous inflictions. We trust that the harness of military rank may render their tegumentary tissue slightly more pachydermatous.

We are gratified in being able to announce that, by a coincidence of a remarkable character, since the appearance of our little paragraph before referred to, the examinations conducted have been of a much more practical sort, as well as more generally thorough upon those details which really require familiarity. We willingly award the merited meed, and will not detract from its radiance by claiming the slighest credit in the premises. Selected, as this Board was, by a non-professional man, irrespective of any general or individual expression of the profession, it is really quite remarkable that political and personal considerations should have permitted so capable a company of gentlemen to occupy so responsible a position. One or two of the physicians composing it, with whom we have had the honor of acquaintance, we are willing to endorse as everything desired in the post, and we sincerely trust that their eminent good nature (impervious even to the little pinch of the squib aforesaid,) may not allow them to approve candidates they do not find to be worthy and well qualified. We are, indeed, assured they will not, for we believe them fully alive to the importance of their position, and though perhaps occasionally a little sensitive to emotional influences, nevertheless thoroughly patriotic at heart.

Army Med. Appointments in Michigan.—Gov. Blair has exercised the appointing power vested in him, by selection of gentlemen of the most marked ability. We scarcely know of an instance where Michigan has Surgeons in the field but what are of the very cream of the profession. We are led to these observations by the recent choice of Dr. J. Andrews, of Paw Paw, a gentleman of high distinction, varied knowledge and large experience, as Surgeon to Col. Kellogg's Cavalry

regiment, recently sent into the field of action. Michigan soldiers will not fail of excellent professional treatment, whatever their fortunes before the enemy or unaccustomed climate. Honor to Gov. Blair.

Notice to Subscribers.—A very considerable number of our exchanges have been compelled by the stringency of the times to suspend publication. Others have run in debt, hoping for better times in future to enable them to meet their liabilities. This journal has done neither, nor will it suspend or run in debt whatever the times. But some little irregularity of issue has been necessitated by the small proportion of receipts to expenditure. Our subscribers must pardon us this, as it will be seen to be dependent more upon them than upon us. There are large arrearages upon our books, and a large list of subscribers, but these have not paid the printer, paper-maker or binder, these have been mainly paid from our own pockets. Early in the year, during the decline and fall of Illinois and Wisconsin currency, our receipts were nominally considerable, but our losses upon bills received were very large by their depreciation, nevertheless we credited the major part at par. We have a goodly list of paying subscribers, and for the benefit of these, having determined upon prompt issue of each monthly number, we have concluded, it must be confessed with reluctance, to erase from our mail list a great number of names whose accounts have remained unadjusted year after year. Justice to paying subscribers and to ourselves demands this, and all interested will please to take due notice. We shall then take such steps as seem feasible for the collection of each of these old bills. Meanwhile, we request prompt transmission of all arrearages, whether of recent or long standing.

Books for Sale.—Any one wishing to procure a full set of the "American Journal of Medicine and Collateral Sciences," Edited by I. Hays, M. D., Philadelphia, from Jan. 1st, 1847, to the close of the present volume, 1861, well bound and in perfect preservation; or the "London Lancet," American reprint, from Jan., 1847, to 1855; or the "Boston Medical Journal," '47 to '57; or the first twelve parts of "Braithwaite's Retrospect," all well bound and in good order, can procure the same, at low figures, by application to the Editors of this Journal, or addressing a line to box 4458 Chicago P. O.

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ORIGINAL COMMUNICATIONS.

"ENUCLEATION OF THE EYE."

By E. L. HOLMES, M. D., of Chicago, Ills.

"Conservative Surgery" in all its relations to the science of medicine claims the most earnest attention of our profession, since it is much more in accordance with an enlightened humanity and more creditable to the surgeon to save a diseased or an injured organ, than to destroy it, even in the performance of a brilliant operation.

For special reasons the destruction of an organ, so important as the eye, is a measure in surgical practice which should only be adopted after careful deliberation and in the presence of absolute necessity.

The loss of the globe of a single eye, even when its powers of vision are irretrievably destroyed, is by no means a trifling misfortune. However reconciled the patient may become to his deformity, it is often difficult to conceal it from those with whom he is in daily contact. The deformity is often so repulsive to many individuals, that they dislike to give employment to unfortunate patients thus afflicted. Although an artificial eye in many instances almost perfectly conceals the mutilation from ordinary observation, it must be remembered that the expense of an eye often places it beyond the means of the

patient; it is exceedingly fragile and very liable to be broken, especially when worn by laborers and domestics; moreover, the natural secretions of the eye and the constant friction of the lids roughen the surface of the enamel in a few years, which irritates the mucous membrane of the lids and necessitates the purchase of a new eye.

We have known several poor patients who had saved sufficient means, after considerable exertion, to purchase an artificial eye, which they broke in less than a month after. Their deformity was a serious obstacle to their efforts to obtain employment.

It is a matter of considerable importance, therefore, to the patient to preserve an affected eye with as little deformity as possible, even though it be entirely useless as regards vision. And yet there are affections of the eye constantly falling under the care of the opthalmic surgeon, in which the comfort and health of the patient, and even the preservation of the vision of the other eye, demand the extirpation of the eye first diseased.

In treating these cases, practitioners seem usually to err in endeavoring too long to avoid an operation rather than in urging it upon patients, when not required.

It is our present purpose to consider briefly these cases and to show under what circumstances our best authorities advise the total extirpation of the eye.

We shall not discuss the propriety of removing the eye when affected with malignant diseases, since this involves points in pathology and practice independent of the principles now under consideration.

There are two classes of opthalmic diseases in which the question of extirpation of the eye usually arises: one including the different degrees of staphyloma, the other embracing chronic inflammation of the deep tissues, especially the iris and choroid. In the first class the operation is usually performed for the purpose of removing a deformity, and in the second, to relieve pain and prevent sympathetic ophthalmitis

—one of the gravest affections of the eye, the surgeon is called upon to treat. In simple staphyloma of the cornea, when the diseases which caused it have passed away and the balance of the eye is free from inflammation, the amputation of the cornea and iris alone is usually sufficient. The wound generally heals without trouble, leaving a good "stump" for an artificial eye.

Two accidents may occur in performing this simple operation, which may place the case in the second category just mentioned: Either the wound may not heal kindly and a slow form of inflammation invade the remainder of the eye, causing neuralgic pain and irritation; or hæmorrhage may take place behind the vitreous humor from the delicate vessels of the retina and choroid, which sometimes become ruptured by the removal of the pressure from them, when the natural fluids of the eye are evacuated. Inflammation and quite extensive suppuration usually follow. In either of these accidents the remaining portion of the eye should be removed to relieve the pain and to ensure safety to the other eye.

There seems to be little uncertainty expressed by ophthalmologists in regard to the treatment most suitable in the second class of cases. Observation has shown that sympathetic ophthalmitis is almost wholly confined to those diseases and injuries which produce chronic inflammation of the deep tissues of the eye, which is too often found difficult to relieve by any treatment except the total extirpation of the eye—or "enucleation," as it is now sometimes called.

Although any affection, which produces chronic inflammation of the choroid and iris in one eye, particularly where the iris becomes extensively attached to the lens, may, if not relieved by treatment, cause the sympathetic affection in the other, it is found that four conditions are especially liable to cause it:

1st. Where foreign bodies are lodged in the globe.

2d. Where a dislocated lens becomes a source of irritation to the eye.

3rd. Where punctured injuries of the eye do not heal readily, but leave deep seated inflammation of the eye.

4th. Injuries, in which large coagula are formed within the globe.

These and similar affections are generally accompanied with neuralgic pain in the eye and over the brow and temple, and finally cause atrophy of the globe.

It must not be supposed, however, that these affections, even the gravest, invariably terminate in sympathetic ophthalmitis. Many patients escape after protracted suffering with loss of but one eye. Still it is the duty of the surgeon, in view of the terrible consequences attending the sympathetic disease, to advise the immediate removal of the affected eye. We have known six cases of injury of one eye, followed by loss of the other from this serious disease. There is not the least doubt in our mind, that the extirpation of the eye first affected would not only have saved the other, but also spared the patients weeks and months of excruciating pain.

There is no need of dwelling upon the description of the symptoms and course of sympathetic ophthalmitis, since the subject is discussed at length in our standard works upon diseases of the eye. We will merely state that the disease commences in the second eye, at a period varying in length from a few weeks to several months subsequent to the injury of the first. Vision usually becomes dim in the early stage of the disease, and finally becomes extinct. There is a peculiar pain and redness in the globe, indicative of inflammation of the deep structures of the eye, which, as we have already stated, almost invariably proves rebellious to any constitutional or local treatment. It was not till quite recently that the only reliable preventive treatment has been found to consist in extirpating the eye primarily affected, before the unpleasant symptoms appear in the sound eye.

The operation, recommended by Bonnet, Critchett and other well known opthalmic surgeons, consists: 1st. In dividing the conjunctiva to the sclerotica by a circular incision parallel with

the circumference of the cornea; 2d. In cutting the recti muscles close to the sclerotica, as in operating for strabismus; 3d. In dividing the optic nerve as near the globe as possible, by means of a pair of curved blunt pointed scissors, passed behind the eye, and 4th. In cutting the oblique muscles as the eye is raised from the orbit.

If the eye is firmly held by means of a suitable pair of toothed forceps, the eye can be thus "enucleated" with great ease and rapidity. There is usually but little hæmorrhage or pain after the operation. There may sometimes be slight œdema of the lids for a few days, but we have never seen anything happen to prevent patients from sitting up, and even in going about the house the next day. In a couple of weeks the wound will generally be entirely healed.

Wet compresses are the only dressing required.

Of late we are in the habit of injecting cool water freely into the orbital cavity immediately after the operation, to remove the coagula and prevent their formation. There is then less unpleasant discharge during the progress of cicatrization.

The conjunctiva, muscles and the lymph, which becomes organized in the formation of the cicatrix, furnish a good support for an artificial eye which, if it does not enable the eye to move as freely as a larger "stump," is less liable to become irritated and inflamed by the presence of the eye.

This subject is an important one; prognosis in any case as to the effects which an injury or disease will have upon the other eye, is always uncertain; it is worthy of consideration, whether it is not better, when vision in one eye has become extinct, and the inflammation of the tissues has continued a long time in spite of treatment to extirpate the eye, in a dozen cases, when the other eye might possibly have escaped, than to suffer a single patient to become totally blind by too long a delay!

We would refer our readers to recent English and other foreign authorities, and also to papers in vol. VI (1859) of the New York *Journal of Medicine*, by Drs. Agnew and Bumstead, of the New York Eye Infirmary.

AN INTERESTING CASE OF PREGNANCY.

By M. M. EATON, M. D., Peoria.

Was called to visit Mrs. S. at her residence, No. — ——— street, October 13th, 1861. Found her in bed, looking anemic, pulse 100, and complaining of flooding, and pains like those of labor, saying, however, that she was not in the family way, as she had been flooding almost constantly, a little all summer. I requested an examination, which was granted; and on making the same, I detected blood flowing very freely *per vaginam;* the bed clothes were completely saturated and a pool was standing by her hips. The *os uteri* was dilated to the size of the quarter of a dollar, and through this an inferior member of a fœtus protruded. I made slight traction on it, and soon brought away a dead fœtus, apparently about four months, somewhat shriveled, but well formed. The funis was broken, but did not bleed. The placenta being retained, and hæmorrhage still going on, I gave the *Vinum Ergota* to bring on uterine contractions.

After the expulsion of the "after birth," no hæmorrhage of account occurred. I found half the placenta shriveled up and of a dark brown color, the remainder as well as the cord so soft that I could easily tear them to pieces with my fingers. There was however no offensive odor emitted.

The fœtus I have in my museum. After my patient had revived, I learned the following history of her case, which some days after she corroborated.

She is of German descent, is 47 years old, has had a large family, the youngest child being 5 years old. She has always been healthy. Was regular from the time she weaned her last babe till the last of December, 1860, when her catamenia ceased, and for four months she had morning sickness, after which her menstrua returned, and had continued nearly daily till I was called. She said she had been getting weak all

summer, but supposing it was the "turn of life" which caused her irregularities, she did not consult me. The above is also her husband's story.

I have reported this case, thinking that she conceived last Fall, when her menstruation ceased; that gestation went on naturally four mounths, when a partial separation of the placenta took place, causing the flowing during the summer, which she thought to be her courses; that this being the case, the fœtus ceased to grow, owing to deficient nutrition, and remained in *statu quo* till the Fall turn, when labor set in, resulting as above stated. The views of Professors Brainard, Allen or Miller requested.

A CASE OF INFLAMMATION OF THE LABIA PUDENDA.

By J. B. HOAG, M. D.

I have recently treated a case of inflammation of the Labia Pudenda, in an infant aged seven months, which terminated fatally, and which, in my opinion, from the fact that the disease is of rare occurrence and from other considerations, is fraught with more than ordinary interest. During ten years practice in the medical profession, I have never seen but one similar case, which occurred in my own family, during my residence in the city of New York, soon after I commenced practice. My daughter, aged about eighteen or twenty months, was afflicted with inflammation in the private parts, causing much pain and some little constitutional disturbance, which was, by the use of local anti-phlogistic remedies, in a few days removed, and the little sufferer restored to her wonted health.

But, to the case under consideration.

On the 15th of Oct., 1861, I was summoned in haste to the residence of T. Perry, of Tipton county, Ind., some four

miles distant from my residence. I found his only child, a girl of seven months of age, giving signs of suffering to no small extent. On enquiry into the history of the case, I learned the following facts: The child had been healthy from the time of its birth, until attacked with the disease from which it was now suffering. The first indications that anything was wrong were, the appearance of slight inflammation about the private parts and indications of extreme pain on emptying the bladder. The father employed W. P. S., an eclectic doctor, who resided nearer him than I did, who made three visits without benefiting the child. He pronounced it inflammation of the kidneys, and though frequently solicited to examine the inflamed parts, refused to do so, assuring the anxious parents and friends that that was of no consequence, and would soon disappear. (I wonder how many cases of Nephritis, in a child of seven months of age, the learned doctor ever saw?) The inflamed parts continuing to swell and the agony of the child increasing under the doctor's treatment, they dismissed him, and I was summoned. I made a careful examination of the region of the kidneys, (which, I was informed, the eclectic doctor had not done,) and could find no evidences of inflammation or tenderness. I discovered but little constitutional disturbance; the tongue was clean, the pulse but little accelerated, the passages natural, and but a light symptomatic fever. The inflamed parts presented a bad appearance, being much swollen, very red and tender. In the hopes that the inflammation could be reduced at once, I directed the mother to keep the parts between the labia clean by frequently washing them with warm water and castile soap; left solutions of Argent Nitras, Plumbi Acetas and Sulph. Zinci, with directions to have a cloth, wet with these solutions, constantly applied to the affected parts. I also directed them to give small doses of Spts. Eth. Nit. occasionally. I did this in order to allay the slight febrile symptoms which were present, and also to act as a diuretic. On my next visit, the next day, I found no indications of the inflam-

mation subsiding, but some little softening in different places. I then directed the parts to be poulticed, and still to be kept clean by frequent ablutions. The next day, I judged that the poultices were hastening suppuration. I intended to return the following day, but did not, in consequence of personal indisposition, and knowing that the child had sufficient medicine to last another day. The next day, which was Saturday, I went rather early and found that the father had gone to Tipton, the county seat, a distance eight miles, for a physician for counsel, and had left particular word for me to remain until he returned. In due time Mr. Perry returned, with my friend, Dr. J. B. White, an excellent young practitioner, a graduate from a medical college in Louisville, Ky. We examined the case together and retired for consultation. He approved of the entire treatment, and recommended small doses of Paregoric occasionally. We also gave the child small doses of carbonate of Iron and Quinine, in order to sustain the system. The child's appetite continued unimpaired, and its strength seemed to be remarkable, considering what it had endured. We agreed to meet there the next day and open the abscess. We did so. Instead of pus, nothing but black, impure blood was discharged. The case was left in my hands. I left the house under the influence of a chill, and was unable to reach home. The next morning I visited my little patient again. I found her much improved. The swelling was much reduced and the appearance of the diseased parts much better. I was hardly able to attend to my duties, and when I left, the father told me that, as I was so much indisposed, he would inform me if the child became worse. Time passed on, and, after a few days, I saw an aunt of the child's, who informed me, in answer to my enquiries respecting it, that "it was getting well as fast as possible." This was indeed good news to me. One week from the day of my last visit, the child's father came for me again. I found the child but little reduced, its strength seeming to keep up remarkably. Each labia had sloughed, leaving a cavity sufficiently large to insert my

thumb longitudinally. There was the presence of some pus, but also the appearance of healthy granulations. I continued to give Quinine and Iron, and ordered the parts to be kept clean and poultices applied. I made three consecutive visits, and on each visit the child seemed to be improving. I told I thought it was unnecessary for me to visit it every day, for the most the child needed was careful nursing and good attention. Several days after I heard of the child's death.

What was the cause of its death? Was it from the pus being absorbed and taken up in the circulation? or was it from the strength of the little sufferer failing in spite of the tonics used? or was it from some other cause? Was the treatment correct?

Who will answer the interrogatories?

THE PRINCIPLES AND PRACTICE OF OBSTETRICS

By Gunning S. Bedford, A. M., M. D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics, in the University of New York; Author of Clinical Lectures on the Diseases of Women and Children. Illustrated by four colored lithographic plates, and ninety-nine wood engravings. New York: Samuel S. & Wm. Wood, 389 *Broadway*, 1861.

The above is the title of a new and original book, by an author already favorably known to the profession, whose means of observation in his peculiar department have been almost unlimited, and judging from the work before us, we are irresistibly led to the conclusion, that the author has well improved those opportunities, for the book presents internal evidence of his knowledge of the literature and a familiarity with the practical details of this department of the profession, which are embodied and systematically presented in this fine appearing volume.

So constant and rapid has been the march of improvement in the science and art of obstetrics for years past, that some means, besides fugitive contributions to medical journals, has become a frequent necessity to properly "post up" the profession upon the progressive and existing state of knowledge in this important branch of medical science. In proof of this, it is only necessary to refer to the large number of works of great value which, for the past few years, have followed each other in rapid succession, and that they were not uncalled for is evidenced by the repeated editions through which some of them have already passed.

The announcement of this truly American work by Prof. Bedford, cannot fail to excite great expectations in the minds of those who are familiar with the author's highly popular "Clinical Lectures on the Diseases of Women and Children," nor do we think such will be disappointed when they have carefully examined this new candidate for professional favor, or conclude that the author has sent his work out any too soon.

The arrangement of subjects is natural and philosophical, and they have been treated in a concise and perspicuous style, while the form of lectures which has been chosen will give to the work a peculiar charm for the student, without impairing its value or rendering it distasteful to the practitioner. The incidental allusions, sentiment and pathos occasionally thrown in, fulfill their intention, by illustrating principle, enforcing rules of practice, or interesting and rendering active the attention.

The author sets out from the usual starting point by giving in the first lecture a description of the bones of the pelvis, and impressing his class with the importance of the branch he teaches, and the necessity of being governed by "inflexible principle, namely: that the cardinal object of the accoucheur, when he crosses the threshold of the lying-in chamber, should be a conscientious exercise of his skill to mitigate as far as may be the sufferings of his patient and conduct her safely through the perils of her parturition."

In the second lecture, the divisions, articulations, measurements and inclined planes of the pelvis are clearly explained and illustrated by excellent cuts. Then follows a consideration of the fœtal head, its divisions and measurements, and this leads to a description of the mechanism of labor in cranial positions, in which the influence of the inclined planes is illustrated. The author shows his disposition to simplify the subject by adopting in his classification but four positions, agreeing in this with the most successful teachers and authors of the present time.

After devoting a lecture to deformities of the pelvis, the author passes to a description of the organs of generation and their physiology. The treatment of the subjects of menstruation and reproduction is admirable and fully up to the present state of physiological teaching upon these subjects. Here, as elsewhere through the work, the author makes just sufficient historical allusion to show how one hypothesis has displaced another, each succeeding one containing some new element of truth, until the profession has reached its present broad and comprehensive views of medical science.

The question, Is pregn ncy a pathological condition? is then discussed. The constitutional sympathies excited in the system, and the changes in the blood might well lead to the inference that they must be the result of pathological changes; the conclusions reached, however, are expressed in the following terms: "That pregnancy is a modified condition of the system, but not a diseased condition; oftentimes complicated with disturbed action amounting to disease, which will require all the vigilance of the physician to arrest."

Considerable space is devoted to the consideration of the determining cause of labor, and, after reviewing and confuing the various theories, which have from time to time been advanced, to explain the initiatory of the process, the author advances his own views. It is not a little curious that upon this, as upon other mooted questions, it is not difficult for an individual to reach conclusions satisfactory to himself, without

seeming to see how easily the evidence on which he relies can be disproved: eg. the ovarian theory—the maturity and disintegration of the placenta—the movements of the fætus, &c., all of which are demolished. Is not the author's explanation, which attributes the cause of this process to the "matured development of the muscular structure of the uterus," analogous to one which he has already disproved, viz: "the cessation of antagonism between the muscular fibres of the neck and body of the uterus?"

The author manifests a laudable desire to furnish an explanation for every change pecular to the pregnant female, as, for instance: "About the third month there is oftentimes quite a prominence of the hypogastric region, owing to the distension of the small intestines with flatus, which in a short time becomes measurably lessened, and thus at the fourth month the abdomen is frequently smaller than at the third." Considering it important to comprehend the cause of this difference, the following explanation is offered: "May it not be due in the first place to the irritation experienced by the ganglionic nerves of the uterus, and thus transmitted to the chylopoietic viscera, and secondly to a reflex influence occasioned by the physical changes going on in the uterus itself?" The reason given why this state of things does not continue during gestation is "because the digestive mechanism becomes in a short time accustomed to these combined influences." Would it not be as satisfactory to say, that as the uterus rises from its low position in the pelvis, that portion of the small intestines which occupied the sulcus between the uterus and bladder, pass over and back of the fundus uteri; and while making this transit they are brought in relation with the inferior portion of the abdominal wall for a short time, which gives this part the prominence referred to, and as they glide back the flatness re-appears?

The author reviews the doctrines which have by different persons been promulgated upon the management of placenta prævia, among others the *entire* separation of the placenta

by Prof. Simpson — the *partial* separation recommended by Dr. Barnes. We cannot avoid the conviction that these views are likely to lead to confusion and grievous errors in practice, for it is undeniable that it would be a gratuitous assumption to suppose that every practitioner would fully comprehend the philosophy of these systems of practice, so as to be able to judiciously adopt the one or the other, as the emergency of the case might demand. For these reasons we endorse the teaching of our author, who recommends version at as early a period as practicable. It has not been our practice, however, to force the hand through the substance of the placenta in the operation.

Our limits will not permit us to gratify our inclination to follow the author, step by step, and note the peculiarities of this excellent work, for there is in it so much to commend and so little from which we could dissent, that this would afford us a real pleasure.

In taking leave of the subject for the present, we most cordially express our approbation of the work, for the scientific research and practical detail so evident on every page. Without making invidious comparisons, we believe that this work is destined to take the first place in the estimation of the profession, as an an exponent of the existing state of the science, and as such we commend it as worthy the confidence both of the student and practitioner.

In our opinion, the author deserves the thanks of the profession for having persevered in bringing out the work in the face of all the obstacles incident to so great an undertaking; and their gratitude for having produced a national work of such unequivocal value. M.

The work is for sale by S C. Griggs & Co., 39 and 41 Lake street.

PLACENTA PRÆVIA. ITS HISTORY AND TREATMENT.—*By William Read, M. D., Member of the Massachusetts Medical Society; of the Boston Association: of the Society for Medical Improvement: of the Society for Medical Observation; of the Obstetrical Society of Boston; Lately Attending Physician at the Boston Lying-in Hospital. Philadelphia: J. B. Lippincott & Co.* 1861.

This monogrph of three hundred and forty pages will be read with interest by the profession, and any who may not be fully satisfied with the various exclusive and partial doctrines which have been advanced upon the management of this class of cases can consult this work with profit.

The author states, "that the work was begun for his own information, at a time when there was more doubt upon many points relating to this subject than at present. As the investigation proceeded, and materials accumulated, it was found that, although the labors of Prof. Simpson, Dr. Trask, and Dr. Barnes had thrown much light upon Placenta Prævia, there were, nevertheless, many questions upon which there might be a great difference of opinion."

A great amount of labor and patient research alone could enable the author to present the subject in so comprehensive and complete a form as he has done. It is indeed a valuable addition to the obstetric literature of the present day, and must meet the approbation of the profession.

The readers of the JOURNAL will thank us for inserting entire the general summary, which is presented in the following conclusions:

1st. The danger to the mother in Placenta Prævia *increases* as the period, at which the labor comes on, approaches the full term. A result rather to be expected from the increased capacity of the uterine vessels, as pregnancy advanced to its termination. It is therefore better to terminate the labor,

after it has really begun, as soon as compatible with the safety of the patient, than to endeavor to conduct the pregnancy to the full term.

2d. The danger to the mother is less when the os uteri is completely covered, than when a portion only is involved in the attachment of the placenta; and least of all, where the attachment becomes nearly or quite central with reference to the os. Under these last conditions there is a strong probability, if the contractions are vigorous enough, that the placenta will be thrown off and expelled into the vagina, and the hemorrhage be checked.

3d. The *condition* of the mother, is a much more important element in making a prognosis of the case, than the amount of blood lost; some constitutions being very much less susceptible to the effect of depletion, and capable of sustaining a greater amount of hemorrhage without being unfavorably affected, than others. The condition of the mother then, should be most carefully watched, and the appearance of any symptoms indicating debility, or a tendency to collapse, should be the signal for the adoption of such remedies, or such a course as will the most speedily and safely insure the delivery of the child. And they should be put into effect without any delay, always bearing in mind the fact, that operations which are perfectly safe to the mother, when her vital power is comparatively undiminished and unimpaired, become almost certainly fatal, if performed when she has become exhausted by hemorrhage and suffering.

4th. In those cases where the pains are vigorous, and show a disposition to be permanent, (the head presenting, the os in good condition, and the strength not materially impaired,) *Rupturing the membranes*, by letting off the waters, and bringing the child's head down upon the os, will, in most instances, be enough to check the bleeding, and place the mother in a safe condition. When, however, a want of tonic power is manifested, or it is probable that resort must be had to forced delivery, the discharge of the waters in this way will only increase the difficulty of the operation, and the danger to the mother.

5th. The danger to the mother is materially increased by artificial delivery. But the same statistics which show this result, also make it evident that this increased fatality is owing *not so much to the operation itself*, as to the enfeebled and exhausted condition of the mother at the time; and that, with a favorable condition on the part of the mother, there is

no more danger in resorting to it in Placenta Prævia, than in ordinary cases of difficult labor.

6th. The effect of artificial delivery to endanger the life of the mother in Placenta Prævia, being therefore almost directly proportionate to the degree of exhaustion under which she labors, it should be the aim of the practitioner to perform this operation, before such a state is reached; always bearing in mind the remark of Dr. Churchill, that "it is peculiar to midwifery operations that they form an ascending series, increasing in gravity from the simplest to the most severe—no two being equal; and therefore, in considering the suitability or practicability of any one, we do so with the knowledge that if the one we prefer, do not succeed, we must have recourse to another more severe and more dangerous."

7th. If from the progress of the case, or the conditions of the labor, a resort to artificial delivery must finally be had, it should not be delayed an instant beyond the time, when the dilatation, or dilatability of the os uteri, permits the introduction of the hand into the uterus: the danger to the mother from forced delivery, being directly proportionate to the degree of exhaustion under which she labors. (See art. 3d, 5th, 6th.)

8th. When from the rapidly failing condition of the mother, or the presence of any cause rendering artificial delivery impossible, a resort to the foregoing is forbidden, the placenta should be wholly separated from the uterus, and such remedies made use of (see Transfusion, p. 326,) as will recruit the strength of the mother, until reaction having been established, she can be delivered in whatever way may be deemed best.

9th. The tampon may be used advantageously in all those cases, where, with an amount of flooding sufficient to materially affect the constitution of the mother, the os uteri remains so rigid that it is impossible to perform artificial delivery. But, while under these circumstances, it is important to gain time for the dilatation of the os, and, at the same time, prevent the hemorrhage from too speedily exhausting the mother; under an opposite state of things a resort to the tampon, by inducing the temporizing policy, will often cause a loss of valuable time, and in this way make just the difference between a safe and a fatal issue. As the effect of this application is not only to check the hemorrhage, but also to excite labor-pains and dilatation of the os uteri, it is totally forbidden, in all cases where either or both of these results may not be desired.

10th. The effect of ergot being of a twofold nature, according to the condition of the system, (ecbolic or parturient when the nervous energy is undiminished, and stimulant when there is a want of this,) it should not be administered, when there is a probable necessity of terminating the labor by an oporation, unless at such an interval, that the effect of it is either exhausted, or will not come on until after the operation is finished, or the condition of the mother is such that it will act merely as a stimulant.

11th. In cases where the exhaustion is excessive, and version is the only alternative, after the feet have been brought down, the body of the child should be left undelivered, until the uterus has been roused to contract, and a firm condensation of its walls has been secured; or at least, it should be withdrawn so slowly, as to prevent the evil consequences which sometimes follow too sudden delivery.

MEDICAL JURISPRUDENCE.—*By Alfred Swaine Taylor, M. D., F. R. V. S. Fifth American, from the 7th and Revised London Edition. Edited, with additions, by Edward Hartshorn, M. D. Blanchard & Lea. Philadelphia*, 1861. *For sale by Wm. B. Keen, No.* 148 *Lake Street.*

The presentation to the profession of a new and improved edition of this well known and deservedly popular work, cannot be looked upon otherwise than as a subject of congratulation. The book has many merits. It is brief, it is comprehensive; it treats in a clear and satisfactory manner upon a large number of medico-legal subjects, the most interesting and important that can be presented to the attention of the physician, and the completeness of the work is enhansed, especially to the American reader, by the appropriate, though not very copious notes and references to recent American cases, by Dr. Hartshorn. The article on poisons is very perfect, treating of the definition of the term, of the different classes into which they are divided, as the irritant, corrosive,

and neurotic; the circumstances which modify their effects, the signs to which they give rise in the subject, both living and dead; the indications which would justify the suspicion of poisoning, as well as some judicious cautions designed to prevent the practitioner from mistaking the manifestations of disease for those induced by toxical agencies; the mode of conducting the examination of cases of suspected poisoning; the peculiar symptoms induced by different poisonous substances; their proper tests, and the mode of their application. The article on infanticide, among other topics, considers the means of determining the uterine age of the child from an inspection of its body; the evidences that the child had lived, as furnished by the organs of respiration, by vital changes in the umbilical cord, the circulatory organs, &c., and closes with a review of the causes of death in new-born infants. The chapters on pregnancy and its signs; on delivery and its means of detection when concealed; on criminal abortion and the agencies by which induced; the signs both in the living and dead indicating that it has been committed, the laws relating to it, and the penalties prescribed as its punishment, convey to the mind clear ideas on the subjects therein discussed. The work contains articles of much interest on insanity, post-mortem changes and appearances, and numerous other subjects, of which time will scarce permit us to give even a synopsis.

Any physician need but place the work in his library, for its interest is sufficient to guarantee it a thorough perusal, and he will rise up from it better fitted to discharge the duties of his vocation. I.

EDITORIAL.

The Reform School.—Turning a leaf in the chronicles of medical reform, we find full tickets—matriculation, dissecting, lecture and hospital inclusive, amounting to *sixty-six dollars*, offered al head-quarters for *twenty-five dollars*—a discount of only *forty-one dollars* for the promotion of the great cause of professional elevation! Cheap at half the money, but, alas, for prospects of speedy reformation, the "beggarly account of empty boxes" poorly represents the richness of the promise of the tympanitic matriculation list. The stock is heavy on the market, and buyers are wary, although the "bulls" are doing their best to inflatethe "fancy." The latest project for "a Royal Road to Knowledge" threatens incontinent collapse.

Swinging in Consumption.—The *Courrier des Etats-Unis* states that a physician in Constantinople has just proved that swinging is a useful remedy in consumption, and calls upon the profession to test its peculiar effects. The Romans used swinging bedsin various disorders, and even Celsus advised them in several chronic diseases. There is an element of truth in the proposition. Gentle exercise, involving use of all the muscles in the body, is among the very best of remedies for phthisis, because it is one of the best promovents of digestion, tissue metamorphosis, and assimilation. There is no greater folly than shutting up the phthisical patient and condemning him to inaction. Open-air pleasurable exercise, generous food and drinks, freedom from mental anxieties, and a steady determination not to succumb to the disease, will cure more cases than cod-liver oil, cohosh or even chlorate of potash. Tubercular phthisis is no more essentially a disease of the lungs, than is gout a disease of the toe. Yet expectorants and inhalations retain their ascendancy in many minds—antimony

and digitalis have their advocates, and scores of specifics, or, in more modest terms, "medicines good for consumption," are thrust in the face of the profession with an obtuse perseverance worthy of the dark ages.

Mercurials in Remittent Fever.—A correspondent of the *Lancet and Observer* states, as the result of sixteen years practice, that he finds it unnecessary to use mercurials of any sort in the treatment of bilious remittent. More than this, he argues that they are theoretically improper, because they tend to disintegrate nitrogenized tissues, whereas in remittent the demand is for elimination of carbonaceous material alone—the azotized tissues not requiring increase of tissue metamorphosis. The theorizing he indulges in, which of course can be easily shown wholly untenable in its grounds, may be passed over for his practical conclusion, that mercurials are useless or positively injurious in the treatment of this variety of endemic disease.

We suspect the vast majority of practitioners in the West aud South will disagree with the conclusions of the correspondent. Remittents may be treated successfully often, without mercurials. The writer has often done this, but, from long experience and close observation, he has found that a judicious use of these potent agents materially facilitates the rapidity and perfection of the cure. Any cathartic which produces dark tarry discharges, not serous but of some consistency, will immensely assist the beneficent impression of the Quinine. Cathartics which do not yield this product aggravate the disease. It is folly to wait for any sort of cathartics or alteratives to procure intermissions of a decided character before employing the antiperiodic; yet, if moderate catharsis does bring on such intermission, the effect of the Quina is more pleasantly secured.

The mercurial cathartic, more certainly than any other, will cause the dark stools rich in carbon. Salivation in bilious

fever, (or any other fever or inflammation,) is a poisonous effect of the mineral, never, of course, to be tolerated here or elsewhere, but we have yet to find the agent which has the eliminating or depurant energy of mercury, however that may be explained. It is unnecessary to go from the one extreme to the other. Because Dr. E.'s practice, based upon calomel as the leading antiphlogistic, alterative, equallizer, etc., etc., is deadly, it is no reason to a philosophic mind that Dr. F. should scout the agent utterly. Because Dr. E. is wielding this weapon indiscriminately in the midnight darkness of his own notions, it is no sort of excuse for the homœopathist or tenderfooted "regular" to forego its unequalled powers for good. The very energy and potency of the thing is what commends it to judicious employment. We repeat, the mercurial may be dispensed with in the treatment of remittent, for its effect may be approximated, with greater or less perfection, by various other agents or combinations. So may even quina be dispensed with, and its effect imitated by other antiperiodics. The prejudice against quina among the ignorant, is almost as great as that against calomel. Shall it therefore be discarded? No reasonable practitioner will admit it for an instant. The profession ought not to come down to the level of vulgar prejudices, but steadily to educate the people up to the higher plane of correct thinking.

The superiority of man over the animate creation, as has been well said, consists mainly in his power to control the physical forces of nature, and render them subservient to his own purposes, and thus the superiority of the true physician is manifested by his reducing to his control those powers or agencies, whatever their name, nature or derivation, which are capable of producing desired changes in the material constitution of the body. There is no force, however potent or apparently unmanageable but what may, by simply rubbing the Aladdin's Lamp of Knowledge, be made conducive to man's advantage. Profound theologians have proved that the very devil himself has his uses—then why not calomel?

Eclampsia and Uræmia.—Practical men must have noticed that the exceptions are few where in the human body apparently identical effects may not be produced by the most diverse causes. We recall the attention of those who have arrived *per saltem* at the conclusion that eclampsia is solely caused by uræmia, to the demonstrable fact that other causes may beget it. Convulsions may result from either excentric or centric causes. The centric disorder may be very various, and the excentric causes as infinite as the play of nerve conduction. The phenomena of puerperal convulsions, or mania even, may occur from a variety of causes aside from uræmia, and the inter-paroxysmal treatment required must therefore be modified according to the exigencies of each particular case.

Atrocious remark of an Army Surgeon.—A friend of ours, connected with the army as a Surgeon—since the war commenced, whilst suffering under the tenesmus of camp dysentery insisted, to the intense disgust of his classical attendant, that he was—*omne rectum.*

Such freedom with the dead languages is fundamentally reprehensible, and should be sternly rebuked.

Arsenic Smoking in Asthma.—The Chinese practice of smoking arsenic in asthma, has a confirmation as to its good effects in a case reported by F. G. Julius, M. D., in the *London Lancet.* A French lady, subject to spasmodic asthma for twenty-five years, and who had exhausted all the usual methods commenced smoking a fourth of a grain four times daily in a cigarette, continuing fourteen days with the greatest benefit to her breathing and general health. She subsequently increased the amount to upwards of three grains. The physician notes the important fact that she does not inhale the fumes and blow them out again, but when her mouth is full, she swallows the smoke. The only ill effects she has ever experienced are swelling of eyelids, and when she first commenced, slight pricking pains in the stomach. She considers herself cured. From

being in a state of constant breathlessness and suffering, unable to lie down or make the slightest exertion, she is now able to go about like other persons, and is rarely threatened with an attack oftener than once in three or fourth months, and that is at once stopped by smoking arsenic with a very small quantity of belladonna or stramonium in the dose mentioned. She now uses, instead of a cigarette, a small red pipe about five inches long.

There is probably no remarkable advantage gained by smoking the arsenic over the other methods of exhibition. The Fowler's solution has long been a favorite alterative in asthma in the West. The writer knows of one case where an asthmatic has become a confirmed "arsenic eater," as the result of a prescription made by him for asthma some ten years since. The paroxysms which were then almost daily and distressingly severe, now occur only at intervals of weeks or months, and are of little severity. Discontinuance of arsenic, however, is about infallibly followed by a paroxysm. The amount taken at a dose never exceeds a fourth or half of a grain, and is very rarely used more than once or twice in three days. The general health of the individual is good, but he is not remarkably robust, although the complexion is clear and ruddy.

The remarkable powers of arsenic as a profoundly acting alterative in various neuroses, deserve more attention from the profession than they have yet received.

Asthma, like other spasmodic diseases, may result from local irritants inhaled, or carried through the blood to the contractile tissue of the smaller bronchial tubes, or again by so called reflex action, i. e. where the local changes exciting excessive contraction are induced by the conducting nervous fibre. In each case involving similar changes in the part, but requiring ever, for appropriate treatment, reference to the real cause, immediately or remotely acting. The inhalation of direct irritants is an obvious cause; digestive, hepatic, renal, cutaneous, cardiac and cerebral, respectively more or less ob-

scure, but capable of diagnosis, and still there will remain a number of cases referrible only to hereditary, idiosyncratic, or, as many believe, wholly unaccountable influences. The number of these latter, we believe, is much less than usually supposed—a more careful scrutiny would clear up the obscurity now thought to surround the cause. It is almost safe to assume that central ganglionic change of structure, either as wrought by inflammation or other modified nutrition, will abundantly account for the balance. The well known character of the agents of use in empirical treatment of asthma, of chorea, epilepsy, neuralgia, etc., etc., indicate a community of action in that they restore the normal nutrition in the central ganglionic masses, particularly of the so called great sympathetic. Many of the phenomena of dyspepsia are referrible to similar central disease. Of course the time has gone by for scientific medical men to look upon functional disease, irrespective of tissue change, as having any existence, save in the fancies of theorists. Disease of the nervous tissue, whether ganglionic or conducting, requires as positive treatment as that of the muscular or glandular parts. The *modus operandi* of arsenic in curing asthma, is identical with that in its curing of ague, chorea, epilepsy and certain diseases of the skin. It restores the molecular integrity of the central ganglia, upon which the parts involved depend for the perfection of their nutrition and consequent perfection in functional operation. All the advances of modern physiology and pathology are slowly but surely infixing this cardinal truth that all disease is the result of modified nutrition, and that all scientific therapeutics consists in re-establishing the normal molecular changes in the material tissues—the principal method whereof is by securing a healthy blood to flow over upon the diseased part—and not simply by inhalations and plasters and specifics, as the manner of too many is and has been since time immemorial. Arsenic is not a specific for asthma or even snake bites.

Lectures on the Diseases of Women. By Charles West, M. D., Physician Accoucheur to St. Bartholomew's Hospital, etc., Second American from the Second London Edition; Blanchard & Lea, 1861.—The popularity of this work is well manifested by the brief period required to exhaust the first edition, both in England and this country. Those who read the first part as it appeared in detached portions in the *Medical News and Library*, will well recollect the anxiety to secure the entire work, tantalized only by the monthly morsels. Both parts being now completed and professionally endorsed by rapid passage to a second edition, we need do scarcely more than announce the fact to our readers.

Dr. West writes little, except on those subjects wherein he has enjoyed large practical opportunities for observation, as he well remarks in his preface, that he has "always regarded mere compilation, uncontrolled by large experience, as more apt to perpetuate error than to diffuse truth."

The range of subjects is quite extensive. Commencing with a detail of symptoms and methods of examination, he passes naturally to an investigation of the various disorders of menstruation. Then follows discussion of acute and chronic inflammatory diseases of the uterus and kindred affections. Then all the varied forms of misplacements, including those of the uterus, vagina, rectum and bladder. Next of uterine tumors and outgrowths. Then of malignant or cancerous diseases of the womb. Diseases of the appendages follow in order, including all the forms of ovarian tumors, dropsy, etc. The concluding lectures are devoted to diseases of the bladder, of the urethra and vagina, and lastly of the external organs of generation.

The manner of the author is excellent; his descriptions graphic and perspicuous, and his treatment up to the level of the time—clear, precise, definite and marked by strong common sense.

Those who have read the author's very readable and instructive book on Diseases of Children, would recognize the

same gifted mind were not the name on the title page. He is no specialist, no "womb doctor," although every page shows the accomplished medical scholar, observer and practitioner. Messrs. Blanchard & Lea have laid the profession under obligation by this valuable reprint.

Diminutive Products of Labor.—A correspondent of the *Reporter* chronicles the case of a lady who gave birth to a child which by careful measurement weighed not quite *two pounds.* At the end of a year it weighed fifteen pounds. It is now seven years of age and of average size. A second birth gave a child which weighed two pounds and ten ounces. This child also grew and prospered. Another still more extraordinary case the writer vouches for, although not occurring in his own practice. The child born at full time weighed only a pound and a half. The next child of the same mother weighed ten pounds and a half. Mother and children are still living. The correspondent states that these births occurred in "families of the highest respectability." We may admit the statement, but still insist that the first three cases were "small business."

Puerperal Convulsions treated by Inhalation of Ether.—Dr. Ayer reports, to the Bost. Soc. for Med. Improvement, two cases of puerperal convulsions successfully treated by anaesthesia produced by ether. The result was in each all that could be desired, relief being prompt and complete. In each case the child was born alive and survived. Thus cases are rapidly accumulating to show that the sanguinary treatment so long depended upon, is wholly unnecessary—beyond this that it is inexcusable in practitioners who are up to the times.

Hæmorrhoids.—Mr. E. H. Sargent, corner of State and Randolph streets in this city, showed us a little instrument capitally adapted to apply ointments of various sorts to the

internal surface in cases of hæmorrhoids. We should judge it also very convenient in some cases of dysentery. It is a little cylinder of hard rubber, with the piston reaching to the end of the tube. The piston being nearly withdrawn the tube is filled with the cerate, and then introduced into the bowel—by pressing upon the piston, as the tube is gradually drawn down, the medicament is freely applied over the diseased surface. Its cleanliness and facility of use render it very eligible. All practitioners know that the ordinary methods which patients use in applying ointments prescribed for this troublesome difficulty, are almost wholly useless. With this simple apparatus they will often prove entirely adequate to the cure.

Congestion of the Brain.—In looking over the list of deaths in the secular papers one cannot fail to notice the very frequent occurrence of the term *congestion*, in connection with some organ as the cause of death. It will of course be recognized by the pathologist that congestion, even if actually present, is but an incident in the train of phenomena ensuing in death. Determination of blood and stasis must have each a cause or causes. The one being the effect of tissue metamorphosis, at the point of determination, and at the other extremity of the nerve fibres connecting with the terminal arterial twigs transmitting the blood. Analogous physical causes eventuate in stasis or congestion. Subsequent changes, resolution, "passive congestion," modification of nutrition of whatever character, depend upon general or local conditions many of which are well known.

The molecular changes or their cessation, are dependent on local causes, upon the condition of the blood, or upon centric or ex-centric change in the vesicular or conducting neurine. Thus the symptoms of "congestion of the brain" may be presented by depression of an investing bone of the cranium, by apoplectic extravasation, by alcoholic or other stimulants, by narcotics, by secondary organic compounds non-excreted; by

"reflex" nerve influence, &c., &c. Prominently poisons introduced from without, and poisons generated within, carried by the blood to the part or operating less directly through the nervous system. Each and all produce congestion of the brain, as they might produce congestion of any other organ. To understand well the difficulty, the changes induced in the part by nerve conduction must be as definitely before the mind as is the change wrought by the varied constituents of the blood.

Time was when the semi-coma of continued or remittent fevers was baptized congestion, and unfortunately this congestion was understood as implying excessive fullness of the bloodvessels; and bleeding, by at least leeches and cups, was deemed indispensable. Some relics of this rough method infest the present time.

How often the retained urea poisons the blood and produces congestion! How often the typhoid fever poison—how often the pahedal, or, again, the retained elements of bile! Experience has shown, as a more exact pathology inculcated, that often the congestion is to be met by the most powerful stimulants—often by sedatives,—and almost invariably, concurrently or subsequently, by eliminants and nutrients.

Mortality among Medical Journals.—At the commencement of the present volume, we numbered a goodly array of exchanges. The editorial heart was constantly rejoiced by their familiar faces, but first came the war and the journals of Dixie became contraband, and we mourn for them but not as those without hope, for we steadfastly believe that, when secession is burned to ashes, they will Phœnix like arise therefrom, and on the wings of the *United States* mail return to us again. Then came panic and hard times, and, alas, one half at least of our northern exchanges have been ruthlessly cut down. Here and there the survivors look out to each other with rueful faces—*rari nantes in gurgite vasto*—and we are half afraid to inquire, or even surmise, who next?

A goodly number of the profession have gone to the wars —a multitude which no man can number are seeking to go, for their patients have gone thereunto, and "thither will the eagles be gathered together."

Of one thing rest assured, Beloved Subscriber, war or peace, the CHICAGO MEDICAL JOURNAL will still continue its accustomed visits—so long as there is a shot in the editorial locker, a profession to sustain, and space in the human mind for improvement and advance.

By the way—have you paid up your arrearage? If not make haste, pay what thou owest, and go and sin no more.

The Physician's Pocket Dose and Symptom Book. By Joseph H. Wythes, M. D. Third Edition. Lindsay & Blakiston, 1861. This is a very convenient little work for students and junior practitioners, containing in a small compass a great deal of valuable information. Many times when waiting upon a tedious case of labor, or from any other cause of delay away from the office and larger books, the student or young practitioner can gleam much of permanent advantage, by conning the pages of such vest pocket compendiums as this. Knowledge never comes without effort, and an immensity can be acquired by saving bits and fragments of time. This little book, therefore, we count valuable, as we do many others that can be slipped in the pocket and then made use of when the moments would otherwise be wasted.

How does Chloroform produce Death.—H. Culbertson, M. D., of Zanesville, Ohio, in a paper read before the State Medical Society, published in the Cleveland *Gazette*, concludes as the result of a series of experiments on the inferior animals as follows:

1st. That chloroform can not be applied either directly to the brain, or through the medium of the circulation, to an amount proportionate to the powers and idiosyncrasies of the ndividual, without producing *unconsciousness.*

2d. That chloroform to induce insensibility must enter the circulation and locally impress the sensorium.

3d. That anæsthesia may be aided by the presence of carbonaceous compounds in the blood, but that this is subsidiary to the presence of the chloroform in the blood acting upon the nervous centres.

4th. That chloroform diluted as it is by the serum when it enters the blood at the lungs, and onward in its course, can not produce any change in the functional action of the red globules.

5th. That the red globules may be corrugated and deformed by the action of undiluted chloroform out of the vessels, but not when diluted.

6th. That aggregation of the red corpuscles is not a peculiar effect of chloroform on these, but arises from approaching stasis within, and from a well known aggregative tendency when without the vessels.

7th. That chloroform first induces excitement and contraction of the vascular system, and then sedation and dilatation, and ultimately stasis.

Phthisis Contagious.—"Lector," in the *Lancet & Observer*, urges discussion of the question whether consumption be contagious, and adduces several instances in support of the affirmative. A host of facts can be adduced on both sides. We confess to having been dubious in the past, and at the present, the writer, like the Judges of the Supreme Court of Michigan on the question of the constitutionality of the prohibitory liquor law a few years since, remains equally divided in his own mind. It is a question difficult or impossible of solution, from the simple fact that it is about fruitless to attempt separation of the influence of concurrent cases. This thing is unquestionably true—no person should remain shut up in a room with a consumptive patient, "or any other man," with whatever disease. The seeds of phthisis are easily sown even in what seem the best constitutions. Free ventilation will rob even the most certainly contagious diseases of the major part of their danger, whether to patient or attendant. The evils of pure air even when admitted into the cavities of the

joints, but especially to the chambers of the sick, have been vastly overrated. On the other hand there are very few diseases which an impure confined air will not render noxious to attendants, even though a similar one may not be produced. It is not simply the air of the crowded hospital which may become pestilential. To "smell like a sick room," ought to be an obsolete expression, but unfortunately it is not. The sagacious practitioner will see to it that his patient has as pure air as the country affords. And, by the by, John, those bottles and gallipots and pill boxes, and bowls and tumblers with filthy spoons in them, on the table there in sight of the patient, affect his nostrils prodigiously, and he eyes them as a criminal would the branding irons—be kind enough to remove them to the kitchen or stable, and bring me a trifle of eau de Cologne to protect mine own olfactories withal.

Inflamed Mamma.—Dr. Hale, in the Druggist's Circular, recommends: ℞ Fluid Extract of Aconite ʒ ss; Fl. Extract of Phytolacca, ʒ j; Iodide of Potassium, ʒ j; Warm Water, Oj. Mix. Apply constantly by means of linen compresses.

Chronic Coryza.—Soubrier's Powder is recommended as an errhine in chronic coryza—ten, twelve or more pinches to be snuffed every day. It is composed of four parts of Subnitrate of Bismuth; eight of powdered liquorice, and thirty of Iodide of Lead, well pulverized and thoroughly mixed.

Chronic Rheumatism.—Dr. Blackburn of Georgia commends the following electuary in chronic rheumatism and also in some cases of Amenorrhœa: ℞: Pulv. Cinchonae ʒ ij; Pulv. Gum Guaiac. ʒ j; Bi Tart. Potassae ʒ j; Flor. Sulphuris ʒ ss; Pulv. Zingiber ʒ j; Syrup q. s. M. ft. Elect. Of which a teaspoonful or enough to keep the bowels gently open should be given three times a day.

Chronic Camp Diarrhœa.—A good old fashioned combination is: ℞ Zinci Sulphat. Solut. Saturat. partes iij. Tr. Opi part. V. M. S. From 15 to 30 drops three times a day.

Another: ℞: Bismuthi Sub. nit. qr. iij—V; Zinci Oxid.; qr. i–ij; Ext. Opi qr. ¼–j. M. S. This to be taken from three to six times a day.

Very often when chalybeates are indicated the Liq. Ferri Persequiseit; in full doses alone or combined with small doses of Strychnia. Several apparently uncontrollable cases have speedily yielded to moderately large doses of Fowler's Solution guarded by a few drops of Tr. Opi. One case which resisted astringents and alteratives of all sorts, where the diet was regulated with the greatest precision and the most careful hygiene enforced and all without benefit, was cured almost immediately by plentiful imbibition of simple Liquor Calcis.

One of our subscribers, a Brigade Surgeon, promises us an article on the cure of camp diarrhœa by free employment of Veratrum Viride and Acetate of Lead. (It is with feelings of extreme surprise that we have not yet to chronicle the magical effects of Chlorate of Potash in this difficulty. Will the light of this panacea not shine along the uneasy bowels of the soldiery?) Equal parts of Acid. Sulph. Aromat. and McMunn's Elixir Opi, in thirty drop doses, three times a day, is recommended by an Army Surgeon in whom we have high confidence.

A great variety of remedial agents will be found convenient, if not indispensable.

A Treatise on Diseases of the Joints. By Richard Barwell, F. R. C. S., Assistant Surgeon Charing Cross Hospital, &c. Blanchard & Lea; Philadelphia, 1861. 8*vo.*, *pp.* 463. *From the Publishers.*

This is a very valuable work, treating as it does of a class of diseases of vast importance. Few treatises on the subject are worthy of note since Brodie's well known work, and the advances in Physiology, Pathology and Therapeutics since

that was given to the profession have been so great, that the time demanded renewed posting up of the whole matter.

A glance at the order of topics discussed by the writer will sufficiently commend the work to the reader's notice, when he is assured that the author is amply qualified for his task.

Ch. I—Physiological Anatomy of the Joints; Ch. II—Acute Synovitis; Ch. III—Acute Rheumatism; Ch. IV—Pyarthrosis; Ch. V—Stumous Synovitis; Ch. VI—Rheumatic Synovitis; Ch. VII—Other forms of Chronic Synovitis; Ch. VIII—Hydarthosis; Ch. IX—Loose Cartilages in the Joints; Ch. X—Acute Articular Osteitis; Ch. XI—Strumous *do.;* Ch. XII—Chronic Rheumatic Arthritis (Osteitis); Ch. XIII—Inflammation and Degluration of Cartilages; Ch. XIV—Hipjoint Disease; Ch. XV—Affections of Synovial Sheaths and Bursæ; Ch. XVI—Hysteric Pseudo Disease of the Joints; Ch. XVII—Restoration of Mobility and Conformity of Crippled Joints; Ch. XVIII—Removal of Diseased Joints.

This is a bill of fare worthy a professional epicure, and the author is clear, explicit and up to the times in his classification, pathology and diagnosis. The chapter on Pyarthrosis will attract large attention, particularly wherein he alludes to the uterine and gonorrhœal source of pus. The latter proposition will meet considerable discussion, before reception, by many minds.

It is to be regretted that the author's therapeutics are by no means up to the level of his pathology and diagnosis. The local treatment is unworthy the association it has too often found. Another capital fault is the omission in large part of the various mechanical appliances, better known in this country than Europe, but recognized by many of the best surgeons even there, which have so immensely advanced successful treatment of diseased joints in this time and this country. But, aside from these defects, the merits of the work must ensure it a cordial reception by all reading practitioners.

Nourishment of the Wounded in Battle.—As soon as the battle commences beef-tea should be prepared in large quantities, by cutting up the beef of the horses which have been killed, in lieu of ox-beef, if that is absent or scarce, in a barrel, and adding hydrochloric acid and water. The wounded, in a painful journey to the rear, and awaiting operation, will be wonderfully sustained and refreshed by this fluid nutriment, and the horrible thirst of the wounded, which is but acute hunger, will be effectually and most advantageously appeased. The mortality, after field operations of even the gravest character, will be diminished in a remarkable manner if sufficient support and nutrition are supplied between the two points of injury and operation, and the reception into general hospitals. If the veins are supplied with healthy nutrition, they will have less temption to absorb pus.—*Amer. Medical Times.*

Dupuytren on Spurious Pregnancy.—Prof. Simpson, in lecturing on spurious pregnancy, tells the following good story of Dupuytren: "Such cases are, happily, extremely rare; but you do meet with them occasionally, and not in patients within the walls of a lunatic asylum only. It is told that a lady once came to Dupuytren, to ask what was to be done in her case, as she had now been in a family way for fourteen years—and the great Parisian surgeon gave it as his opinion, that as the boy must be tolerably well grown by that time, the best thing the lady could do was to swallow a tutor immediately, that his education might not be neglected."—*Medical News and Library.*

Sylvester Method of Restoring Suspended Animation.—This method, which has supplanted with many the Marshall Hall method, is thus described:

"Dr. Sylvester's method is to lay the patient on his back, and having pulled the tongue forward, to draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles, and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as in the Marshall Hall method, and it is said that they give a more complete change of air to the lungs."

SELECTED.

MORAL INSANITY IN RELATION TO CRIMINAL ACTS.

By I. PARIGOT, M. D.,

Late Commisioner in Lunacy and Chief Physician of the Colony of Gheel, Belgium; Honorary Professor of the University of Brussels; Member of Several Academies and Learned Societies.

It is easy to say, *That man is crazy;* but it is not so to prove it. How can a simple affirmation or a medical certificate, without proofs that a man is insane, deprive him of his liberty?

There is no doubt, at least in Europe, and perhaps here, that if mental diseases had been accurately described—if physicians had not contented themselves, and magistrates been satisfied with a single line assuming, *ex virtute officii*, that a man was to be shut up as insane, many errors, injustices, and miseries whould have been spared!

It is true an authentic demonstration is not always easy—who is infallible? At all events, when a physician gives his opinion in a court, relating to the life, honor, and property of individuals, his office is of the highest character. The importance of his function must elevate his soul and mind above all private interest.

As we have said, it is difficult to say when spiritual causes have sufficiently acted upon our body to elicit insanity. Where is the line or boundary of sanity and madness in a corrupted conscience? Here again our only criterion is medical observation, with this difference, that we ought to be very cautious, and always avoid appearing to be under the influence of some secret motive. It is about the same for everybody concerning the moral cause of insanity. There is also a line we ought not to pass. Every man should take care of his weak side. Education should have, for one of these objects, to fortify our wills, in order to make up for gifts that we may want. Not only is this true, but, as the Scriptures say, the

spirit is the same, but gifts are different. Let us suppose that a man of ordinary ability would, from the plough, begin and assiduously prosecute high and profound studies. (I have often seen such cases in rural schoolmasters attempting to study divinity.) Now that man will soon feel some premonitory symptoms of an over-exertion and fatigue of his intellectual powers. If he continues his foolish task, he will perhaps very soon say that some light from heaven has descended upon him, and turn a furious maniac.

The so-bitterly criticised theory of a most distinguished alienist, Dr. Moreau de Tours, who asserts that madness is often the result of an over-activity of the brain, is justified in this and many other causes. When that author affirms that if vital force accumulates in one organ, one of its results must be either a great energy of function or a lesion of that organ, he says something very true. It is in this sense that Dr. Moreau finds some affinity between genius and madness. His antagonist, M. Flourens, though a man of immense talent, is, I fear, a bad judge of the value of this theory, since the learned Perpetual Secretary of the Institute of France, amongst a great number of pamphlets on all sorts of subjects, has written a small compilation entitled *Essai physiologique sur la Folie*, which shows that he never gave much attention to that special subject of medicine.

As insanity cannot exist without a form of exterior disease, so bodily health cannot accompany and is incompatible with a mental infirmity. Symptoms of diastrephia are numerous, and moral insanity or diastrephia presents several phases or stadia during which the following symptoms may be observed:

Generally patients are different in manners, ideas, feelings, conduct, and even language, from what they were before. No delirium or delusion is sometimes perceptible. In some cases bad habits, customs, or indulgences, are more frequent and become notorious. After a certain time elapses since the premonitory symptoms, patients become incapable of serious occupations. Their will is impaired, their power of control lost, and their instincts let loose; there appear irresistible or unaccountable eccentricities and whims. It is in this period that sometimes delusions or a mono-delirium appears, but it is rare.

During that phase it has been noticed that some patients take pleasure in telling stories, intriguing and deceiving people; otherwise they are not loquacious; but then the moral

infirmity augments. There exist often hardness of heart, selfishness, and bad dispositions. From that state they become profoundly melancholic.

If the character of the disease still augments, immortality accompanies the propensity of doing harm or committing some atrocious crime. The patient is dull, and appears indifferent, though secretly he has a delight of preparing some evil action. When crimes are committed, their execution is particularly remarkable. When the patient is detected, or when he offers himself, he admits readily the facts, however scandalous or horrible they may be. Generally there is a complete absence of grief or remorse.

In all these cases, letters, memoirs, designs, etc., are of the greatest value to ascertain the mental condition of the writer. Their general feature shows cunning, complaints, and false statements.

Diastrephia may have a milder course, and present a remittent series of fits. Some take place several times in the day, or in the week. I have seen a patient who remained sometimes one whole year free from attacks. During their lucid intervals they offer no signs of insanity, except some disturbances in their general health; but in the attack patients say they suffer a great deal in the head.

Some patients, and especially dipsomaniacs, employ much art in preventing people from remonstrating. For instance, they will feel offended—being gentlemen or gentlewomen—to be told that they were found dead drunk in some sewer of a street, etc. Their infirmity makes them powerless against a subsequent impulse, and they fall to the lowest scale of degradation. Some patients, after a fit, regret what they have done, and sometimes beg to be taken care of for the future.

No medical man denies to-day the solidarity of *innervation*, *sanguification*, and *nutrition*, and there is certainly an intimate relation of these functions with those of the brain. For instance, any long process of enervation, produced by solitary habits, will soon operate a change in the mental organism, just as any deviation of nutrition will produce a morbid diathesis.

Who would maintain that a mental lesion can exist exclusively of any morbid reaction of the body? We have never met with such an exception. If it was so, diastrephic cases might remain the subject of interminable discussion between lawyers, philosophers, and physicians. Our conviction on this subject may perhaps make us appear to overrate the value

of physical symptoms; but we must declare that it is their coexistence with mental aberration that gives them the advantages upon which we insist.

Now what we say of diastrephia is applicable to cases of simulation of insanity. Let the part of a feigner be played as well as possible, emotions would be difficult to imitate; but somatical symptoms would be still more difficult or impossible to imitate. Supposing even that a simulator could impose upon a skillful observer, the result of his game would very probably be *real* insanity—a curious and forgotten form of insanity to which I shall afterwards refer. For the present I wish to state that it is a direct proof of the power of ideas on our bodily structure.

Among the physical signs which I am going to mention, one of the most important is the existence of a morbid action on the brain. Pain is reported to exist in different parts of the head, and other bodily symptoms depend often upon a reaction of the nervous centres. They present various features, the *ensemble* of which strikes at first sight the practical observer.

According to the excellent observation of Dr. Billod, in the tenth volume of the *Annales medico-physiologiques*, there exists a curious interruption of volition in the muscular system. In spite of the patient his limbs cannot obey his purposes. It is just the opposite of convulsive muscular action which takes place in various diseases. The cerebro-spinal system is disordered, so are the functions of the sympathetic. Irregular innervation of arteries and veins produces latent disorders in various parts, of which patients rarely complain. There is an irregular visceral and capillary circulation which affects nutrition and several of its functions. Patients are emaciated, they feel a general heaviness over the whole body. Their complexion is sallow, their skin harsh, and its emanation has a peculiar smell. Very often they are feverish, the heat of the skin is increased, the pulse frequent, the tongue furred, and the bowels almost permanently confined. Their rest is troubled during the night; they want to lie down often during the day. In cases connected with melancholy there is a deficient sensibility of the peripherical ramification of nerves sometimes producing anæsthesia. Generally an expression of pain is apparent. The physiognomy is dull, and suggestive of indifference and selfishness. The face is pallid; the stare is not vacant but uncertain. Sometimes the eyes wander about, or there exists a tremulous movement of both eyes

when the patient fixes them on any one. Squinting has been remarked, but it is rare. Sometimes the pupils are irregularly contracted, which is a bad sign. When there is irritation of the brain the pupils are contracted. They are dilated in the congestive state, without irritation of that organ. The non-contraction of pupils indicates a loss of sensibility of the whole nervous system. Generally there is a peculiar look in diastrephia, indicating shrewdness and a disposition to do mischief. These signs are more apparent when fits are going to take place.

In this disease we have seldom seen a case without dyspepsia; there are gastralgic pains and a voracious appetite. Palpitation of the heart very often accompanies that disposition, and augments the sufferings of the patient. Complications may arise: thus uterine affections are the source of moral disturbances. Some arise from essential and local diseases, as gout and rheumatism.

Patients of a nervopathic disposition are often perfect hypochondriacs. Some, in spite of a suicidal propensity, are constantly occupied with their health and comfort. They ask continually for medicines, and are afraid of doing something wrong concerning some trifle, but, by a sudden impulse, they will commit suicide. When interrogated or asked why they committed certain deeds, some can give no reason or account for it; it was *an impulse*, *a desire*, etc. Some are very cunning in avoiding explanations.

We have seen a lunatic who wanted to be under the guard of somebody, even of a child, lest he should do some harm. That man, who had resided several years in the village of Gheel, in Belgium, was boarded in the family of a small farmer, and had never committed the slightest offence although under the influence of distrephia. I often visited him; he was sometimes alone, or under the guard of children—the parents being at work in the adjoining fields. Some people of his birthplace having told the burgomaster of his village that the patient was cured, since no insanity could be found in his *talking*, a medical report was required, and, notwithstanding its conclusions, the administrative authority set him at liberty. He went home; but the man, let loose to his propensity to murder, killed his wife, in order, as he declared, to *cook her feet*, and, being disturbed in his horrible meal, he also killed an old man who had accidentally called at his house.

It is certainly remarkable that in the free-air system insane

people, under the moral restraint of knowing that they are watched and observed, are less tempted to yield to morbid impulses than otherwise. In a population of a thousand free lunatics in a village, the great number of moral insanity cases is quite sufficient to guarantee the practibility of the system.

Since authors have reported that lunatics experienced, in cases of fits, a sensation of burning, that, when it arrived at the head, caused a momentaneous fever. There is, and I must notice it, much affinity between diastrephia and epilepsy—they pass also into each other, as in the following case:

A young man had suffered eight years of epileptic fits. During two years the fire was within him, but instead he had fits of diastrephia. As soon as he felt the attack he used to cry, *Dear mother, be off, or I must kill you!*

Diastrephia, if cured in its early period, ends generally in dementia or general paralysis. This desease is frequent; but authors describe it under an other denomination. For instance, all the cases died in the manual of Bucknill and Tuke, from p. 178 to 220, under the head of *Emotional Insanity*, are all, except a case of erotomania, pure diastrephic cases.

All the symptoms that we have enumerated are not seen at first sight; they require time and leisure to be detected. It is not to be expected that a physician, suddenly called into a court of justice, would be able to ascertain their presence in a first examination. Days, and sometimes months, may be necessary to investigate doubtful and difficult cases. The necessity of a fixed rule by which medical officers should be under the obligation to specify the moral and physiological signs of insanity in their affidavits is evident. The numberless difficulties arising from summary legal reports, and the dangers resulting from it to individual liberty and property, threaten every one.

In civil lawsuits concerning the suspension of civil rights, the validity of the public transactions of certain persons, the state of mind of persons having made wills and donations, etc., it is often necessary to examine certificates concerning past periods of the life of a person; but if these certificates or documents are defective or incomplete, on account of some general statement giving no details or description, they can be of no use. In criminal prosecutions it is sometimes necessary to know whether insanity existed at a certain time—its nature and its form—sometimes useful documents might be found concerning the parents and ancestors or adoptors of an accused party. One difficult point remains to be elucidated concerning incipient cases of diastrephia, or rather concerning the period

of its prodroms. The question is this—When ought vice and immorality to be considered the proximate causes and motive of a reprehensible act? And when ought it to be considered as the result of a diseased brain? We would propose that, if pathological symptoms are not evident, if, at the same time, psychological signs are doubtful, on account of the identity of probable cause and of its results, no medical man should give his evidence in favor of insanity. And the reason is obvious. In a sort of intermediate state we have no right to decide the question.

In the course of this paper we have tried to keep clear of a confusion about the unsoundness of moral sense, widely different from that unsoundness of mind which is the result of a pathological condition of the brain. Physicians have no wish to impose ambiguities by which juries or public opinion should be bewildered If they differ sometimes in opinion, it depends entirely upon the nature of doubtful cases.

On my arrival at Sing-Sing, I was kindly lent a book on the case of a late broker, Charles Huntington, and through the influence of a most distinguished and deserving physician, Doctor Fisher, residing there, was introduced to the convict in the State Prison.

While reading the case it appeared to me that either the subject had been a lunatic, afflicted with a special deficiency of moral sense, with great instinctive cunning and ability to deceive, or that he was a lunatic under the influence of some kind of diastrephia. After my visit to the prison I came to the conclusion that the prisoner was neither the one or the other, although many facts showed that he had been in the process of becoming really insane.

After a few words were exchanged, the convict himself told me that in his opinion he had never been properly insane, though he had felt something wrong in his head until two years since. Up to that period he would have counterfeited any man's signature. He said his habit of forging had come to such a degree that to get *his own money* out of a bank he would have rather employed a forged paper!

Being, of course, a perfect stranger to all parties who appeared in this trial, the opinion I venture is free from prejudice and only liable to errors of my own.

It appears that in the State of New York it is a jury that decides upon cases when the plea of insanity is brought forward. The law of the State, as explained in the case of Huntington, does not admit moral insanity as an excuse for responsibility.

Partial insanity or monomania would not absolve the party unless it wholly deprived the patient of the power to distinguish right from wrong! We have already objected to such absurd worn-out jurisprudence—more perhaps than 600 years old—in England. But whatever the law may be, by another mistake the jury is omnipotent in scientific difficulties, because by its verdict the jury may either absolve without explanation or condemn without the slighest light on the scientific question. Now I believe that the jury was accidentally right in finding Huntington guilty, although some doubts might have been entertained on his real state of mind.

In this point of the trial I am convinced of the good reasons brought forward by the two medical witnesses to establish their opinion. I do not partake entirely of it, but I acknowledge their sincerity and scientific ground. These physicians have, I may say, to the honor of our profession, shown their profound knowledge and aptitude to discuss difficult points on a medico-psychological specialty; but the whole of their discussion with clever jurists shows how much physical symptoms were wanted to confirm their opinion. It is even curious to remark that their opponent's arguments were based on this very want of symptomatic evidence. However, the whole appearance of the case leads to the admission of a prodromic stage of diastrephia.

The conduct of Huntington from a boy up to the time of his trial bears the characteristic of some morbid diathesis and hereditary taint of insanity. His diseases, when a child, might have had a depressive influence on his conscience; and later, when a man, his temperament and propensities could hardly be checked by mixing with speculators in stock-jobbing. He lived alternately in wealth and poverty, extravagance and want. In prison he was found indifferent to his situation, although accused of a capital offence! His appreciation was certainly defective. Reading the case, one might ask whether he was not stimulating insanity? The prisioner maintained that he never intended injuring people! Still he found in forgeries the means of gathering enormous sums of money, of which he spent a great deal in self-gratification! Huntington said that it was a desire that came over him; that nothing could have prevented him from forging false paper, and that it was only two years since that he felt better, could sleep, and could say that he would not do it again.

The learned counsel for his defense explained the curious circumstance of the carelessness of his client, who had made no arrangements to escape or prevent his arrest.

Then the able advocate put several questions to the physicians. 1st, Whether in their opinion, the defendant was sane or insane when the forgeries were committed? 2d, If insane, what was the nature and character of that insanity?

It was answered that it might be possible that all might take place as the result of almost unparalleled recklessness, but that from personal examination, and also from the testimony heard, it might be said that those actions were the actions of an insane man.

The answer appears unsatisfactory because it admits almost the possibility of recklessness, and does not point out the morbid nature of the acts. The testimonies on Huntington's conduct could not supply the wanted symptoms of an actual state of insanity. The mental state of the prisoner was the first and principal object of demonstration; his actions were naturally the consequence of his mental disposition.

Cross-examined by the advocate of the prosecution, one of the medical gentlemen was asked this question—

Upon what the prisoner said to you, and from what you judged from his appearance, would you pronounce him of unsound mind, from your examination and from his appearance?

The question is direct, and points the vital knot of the case. Besides, this question shuts all issues, by repeating that the source of information must be personal examination of the prisoner.

The answer was—Not by his appearance, but from my examination of him I should.

Now by this answer physical symptoms were almost abandoned as of no value. However, the same physician said further, that the expression of the face of Huntington was not that of a villian but that of an insane man.

This general statement might have been good, if followed by a description which might have convinced the jury and court. Now, the advocate for the prosecution very adroitly asked the doctor to explain, what was the disease of his physical organization which prevented him from resisting the tendency to commit forgery? It was a quibble; but the lawyer knew the weak side of the jury, and was certain of being victorious if he could prevent the physician from giving a satisfactory answer. The physician honestly said that he could not give the pathological anatomy of the case! The advocate insisted upon knowing the relation of a physicial lesion of the brain to a moral perversity, and repeated the question, What urges the patient to forge paper? This insistance was very

likely a necessity of the situation, because the learned lawyer would not have purposely laid a sort of trap for his respected and intimate friend, as he called the doctor in his exordium. I believe that such an unqualified question might have misled a less capable and learned physician to invent some new name of special disease having for its characteristic to *forge paper to the amount of half a million of dollars.* The question was ridiculous and improper, because it had nothing specially to do with the trial, as being a question on primary causality in our moral nature, and a *modus operandi* of anatomy.

Another physician, also a learned professor in a medical school, explained with great accuracy why he did not believe in the existence of monomania. He thought that Huntington was insane because his intellectual and moral nature, as well as his propensities, were diseased. The honorable witness stated, that in this case no delusion nor hallucination existed, but only *moral insanity.* He said that Huntington in his moral obliquity, would, perhaps, in the West, have committed criminal acts attended by violence; but that having *satisfied himself* that Huntington was insane he thought it unsafe to say or foretell what an insane person might be inclined to do.

I sincerely regret that this witness did not add objective proofs to his own conviction. Although the verdict was, I believe, a just and a right one, will it not appear injudicious that a jury of laymen should have to appreciate and judge a medical discussion, led by clever but artful gentlemen of the bar? With reference to the knot offered to the jury to untie, I imagine that the honorable jurors may have very well said among themselves that balancing the moral account of the broker, and finding him guilty, his state of mind had little to do with their decision.

I conclude this paper by the following propositions:

1. That the disease called moral insanity is but an affection of the faculty of violation and instinct, attended by physiological symptoms.

2. That the name of moral insanity is defective, because it bears no relation to the cause, symptoms, and results of that disease; and that it misleads the opinion of the bar concerning crimes committed under its influence.

3. That the laws and rules concerning insanity, relating to civil and criminal cases, ought to be put in accordance with the actual state of medical science.

4. That no person ought to be considered as being insane if physical and mental signs cannot be traced and ascertained.

5. That a reform concerning medical certificates is necessary to insure regularity in obtaining from courts or judges orders to detain a person as insane. That no such document be admitted unless containing, 1st, All the moral and physical symptoms of the case; 2d, The diagnosis and prognosis of the disease.

Now, until a reform be made, we should have license to say to the legislators and jurists of this and other countries—Si habetis corpus, nos habemus animam.

Sing-Sing, Oct. 1861.—*Medical Times.*

EXSECTION OF THE HIP-JOINT.

In reporting a recent successful case of exsection of the Hip Joint, Dr. John Swineburne of Albany, N. Y., concludes as follows:

In April, 1861, Dr. James R. Wood politely showed me one of his cases of exsection of the hip-joint at Bellevue Hospital, which was progressing with every prospect of perfect success, and in answer to my interrogations as to his views of exsections, he laconically replied that "we must select our cases." I saw one which had been exsected by Dr. Guerdon Buck, at St. Luke's Hospital, this was also doing well and augured favorably for perfect success.

Dr. Sayre showed several perfect results (in private practice) and others in the progress of treatment—these bid fair to be perfect results. He also presented several diseased knee-joints in the different stages of treatment by free incisions. Also some cases where the joint had recovered its entire mobility. He also showed me the result of a case of disease of the ankle-joint, through which he had passed a seton from side to side, and kept it until full separation was effected, when the wound was allowed to heal by granulation. I found this girl skating in the *Palace Garden*, while no perceptible difference in gait or otherwise could be perceived.

In answer to my inquiries as to exsection of the different joints, he said that "the ball and socket joints are the most suitable for exsection, while the hinge-joints are best treated by free incisions and subsequent suppuration, granulation, &c."

In the American *Medical Times*, Vol. 3, p. 192, I find a

statistical table of exsections from the recent work of Dr. Hayfelder on exsections, which might seem to contrast strongly with the views of Dr. Sayre.

		Deaths.	Cures.	Cures.
Exsection of hip	66 cases,	33	33	being 90.50 per cent.
" knee	179 "	54	125	2.30 "
ankle (foot)	22 "	3	19	6.33 "
elbow joint	288 "	33	220	6.63 "

While of partial exsections the results are so favorable as to encourage repetition.

		Deaths.	Cures.	Cures.
Partial exsection of the knee	36 cases,	16	20	125 pr cent.
" " foot	77 "	8	69	
Exsection astragalus,	67 "	9	58	
" os calcis,	81 "	1	83	

Taking these figures, they speak well for exsection of the large hinge-joints, such as the elbow, knee and ankle, while in the hip 50, are cured, in the knee 2.30, in the ankle 6.33, and in the elbow joint 6.66 are cured. This table is not in accordance with the above-mentioned idea of Dr. Sayre, though when Drs. Sayre and Cooper come to present a tabular view of the comparative success of exsection of hinge-joints on the one hand and the free incision into the same, (taking it in all points of view,) I am induced to believe that the free incision will still present many advantages over exsection.

1. In free incisions there is less shock to the system and less active reaction.

2. There is no loss of substance or shortening of the limb.

3. There is much less danger of permanent anchylosis.

4. It is much more within the range and province of all physicians, and hence if only equally advantageous to the patient, it is still better for the profession because within the province of all. Once establish *this* fact that the danger of opening joints is but trifling, and many bad cases would be cured by this method which would never have been exsected from fear of so formidable an operation, and from an insufficient knowledge on the part of the physician, or the want of proper means to defray the expenses of so tedious an operation and convalescence, and hence would remain and suffer on until death relieved the patient.

5. As to the comparative time to complete the cure in the two modes of operation I have no data.

In the way of chronic joint surgery, Dr. Sayre is doing wonders, and though I do not propose to go into a discussion as to the merits and demerits of his original claim as to the

apparatus for the treatment of morbus coxarius in the first stage, I do emphatically say that the doctor deserves the *gratitude* of suffering humanity for bringing his apparatus prominently before the profession, by which, extension, motion, and exercise are combined. Thus keeping up and improving the health of the little sufferer. I have within six months applied this apparatus to two cases of morbuscoxarius in the first stage, and the result is satisfactory in the highest degree.

In the Philadelphia *Medical and Surgical Reporter*, Vol. 7, page 40, will be found an article, quoted from the San Francisco *Medical Press*, for July, in which Dr. E. S. Cooper lays down what he calls new surgical principles, and enumerates them from 1 to 7. In the main, I think the doctor correct, but while all this may be true of a diseased joint, I would make the pertinent inquiry:

1st. Were you, as surgeon, to find a healthy knee-joint opened for two, three, or four inches in length with a clean cutting instrument, would you allow it to heal by granulation? or would you rather close it by metalic sutures as carefully as possible with the object of obtaining union by the first intention?

2d. Were you called to treat a punctured wound of the same joint, would you close it, allow it to suppurate, or would you rather convert it into a full and free incision?

3d. In the operation for the removal of false cartilages from the joint, should your incision be large and free, and allow the same to heal by granulation? or should you strive to remove the cartilage by subcutaneous incision, and so heal the wound by the first intention,

There are some important considerations in reference to healthy, in contra-distinction to diseased joints, which require further consideration, and I candidly confess (with my limited experience) that I am unable to give a solution of them. I would therefore invite the profession to investigate carefully this important and intricate matter.

RISE AND PROGRESS OF CLINICAL TEACHING.

Extract from an Address by

J. L. LUDLOW, M. D.,

Philadelphia, at the opening of a new Clinical Lecture Room.

When ignorance and superstition ruled the minds of men, and credulity and fable were the characteristics of the age, we cannot suppose that our science would have shared more than others in enlightenment and true philosophy.

No—though disease stalked abroad, and man saw his fellow man *writhing* under the torture of pain, or parched by feverish heat, or covered with the pestilential leprosy—though the the sightless eye-ball rolled in its socket, as if looking for some one to destroy the cataract which obscured the vision, or some hideous deformity was intruded upon the passer by—yet man, selfish *though he is*, thought little how he might alleviate the sufferings of his race, by examining the *structure* of the human frame and the uses of its parts.

We, at this day, wonder why, instead of placing their sick in temples and public places, to beg of the traveller a remedy for diseases and deformities, they should not have endeavored to so investigate the nature of maladies, and so apply remedies as to relieve, if not to cure.

Buildings for the purpose of worship were the principal depots for the afflicted. In the temples of Esculapius, however, we find more particular attention paid to the ills of the race. The priests, it is true, dealt more in mysteries and in charms than in clinical instruction; but as time elapsed, by the observations made constantly upon the diseased who frequented the temples, something like a science was commenced.

From the Asclepiades, from the master to his scholars, from father to son, through a long line of descendants, the observations in these temples were transmitted, until we find them culminating, by intellectual and hereditary right, in the sage of *Cos—the immortal Hippocrates—the Father of Medicine.*

To *Hippocrates* we are indebted for those recondite and choice observations in Medicine, gleaned and garnered by study *at the bedside*, which has crowned him with an immortal wreath, and transmitted his name and works, to this late day, as wonders of research and philosophy.

Had the precepts of Hippocrates been followed, and observation at the bedside been made the basis of practical medicine, instead of vagaries, loose speculations and hypotheses, the science of Medicine would, no doubt, have attained greater perfection even at that distant period.

But the minds of those who followed the Father of Medicine appeared to loathe the only true method of instruction in any science. Instead of induction guiding their judgments, they appear to revel in a love of crude thoughts, upon which they attempted to build systems upon which they might wrangle and wrestle, if for nothing else than to prove their great powers of mystifying and *darkening*, by words without wisdom, the simplest truths in nature. As man is alike in all ages of the world, they no doubt were very like some of our modern lecturers and speech-makers, who deal much in what the Latin poet calls "*Vox et preterea nihil*"—a fine speech without matter.

With all due deference to the hoary-headed sires of those ages, I must confess that while I wonder at the industry which amassed their huge tomes, I am amazed that they could write so much and do so little.

As we descend the stream of time, passing, as we necessarily must, many important names and eras, we are arrested by the name and fame of *Galen*. *Not*, however, that he did anything for the advancement of Clinical Medicine, but that he, by the food which he administered by his writings, disquisitions, text-books, rather fostered the spirit of controversy which impeded the progress of true observation into the causes of disease for many ages.

If clinical instruction at this time was followed at all, it could only have been by a few in private practice.

It has been asserted by historians, that hospitals do not date earlier than the close of the third or beginning of the fourth century. Upon this, however, there remains a doubt. At any rate, cotemporary with the creation of hospitals, we must notice the celebrated schools of Alexandria, and that of Dschondisabour, in Persia. These schools being in close proximity to the hospitals, the inference is not too strong that they were made use of as a part of medical instruction.

Among the earlier hospital schools, that of Alexandria, in Egypt, was so celebrated, that it is said an assiduous attention upon it conferred the right of practicing medicine.

Previously to this period, hospitals had been more particu-

larly appropriated to the care of the sick; but from this time they gradually fulfilled a two-fold purpose, *that before mentioned*, and also as schools of medical observation and instruction. When the School of Bagdad was founded by the command of Almanzor, it was filled with superintendents from Dschondizabour, where an infirmary had been founded, superior even to that of Alexandria.

As the Arabs proceeded in their conquests, we find hospitals and medical schools following in their wake. Under the protection of that race, (the Saracen Moors, who overrun Spain,) universities and hospitals sprung up in the cities of Seville, Toledo and Cordova. At such hospitals, Ali-Abbas, a noted Arabian, advised, as a great duty, the attendance upon the *Hospital Schools*, there to observe how little the real appearance and characteristics of disease coincided with the description in the books of the times. Although at this time the advantages from Hospital Schools appeared to offer every opportunity for the only proper advance in medical science—namely, by observation, close and critical, at the bedside—nevertheless, it really appears as if they wished to blot out the sun, and substitute the taper for a luminary, in advancing true medicine. Fruitless and vapid discussions assumed the place of strict observation and induction, and disgust drove several to travelling in Italy and France, whence the tide of literature had been flowing. There too, however, the love of writing and declaiming on medicine, instead of observation, existed. But the number of hospitals increased, and we would have supposed that these would have stimulated proper medical culture. *Not so, however.* Writing and speculation, with a mass of crude controversy, still clouded the minds of the Doctors of those times. Revelling in their favorite schemes and dogmas, they almost extinguished the little light which had dawned in the medical world. They most truly forgot the motto of the illustrious Hippocrates—"*Ars longa—vita brevis est.*"

In proceeding, gentlemen, I think it is not inappropriate to the present occasion, to stop a few moments and pay our tribute of veneration and gratitude to two immortal names, Sir Francis Bacon and Thomas Sydenham. The former the father of Inductive Philosophy; the latter the restorer of Hippocratic Medicine. The former the pioneer in correct reasoning; the latter the applier of that system to the development of our science. The influence of the Baconian philosophy upon Sydenham we may learn from the following passages:

"As truly as the physician may collect points of diagnosis from the minutest circumstances of the disease, so truly may he also elicit indications in the way of therapeutics. So much does this statement hold good, that I have often thought that, provided with a thorough insight into the history of any disease whatsoever, I could invariably apply an equivalent remedy—a clear path being thus marked for me, by the different phenomena of the complaint. These phenomena, if carefully collated with each other, lead, as it were, by the hand, to those palpable indications of treatment which are drawn, not from the hallucinations of our fancy, but from the innermost penetration of nature.

"By this ladder, and by this scaffold, did Hippocrates ascend the lofty sphere. The Romulus of Medicine, whose heaven was the empyrean of his art, he it is whom we can never duly praise. Herein consisted the theory of the divine old man. It exhibited the legitimate operations of nature, put forth in the diseases of humanity. The vain efforts of a wild fancy, the dreams of a sick man, it did *not* exhibit."

I could quote further, with advantage to us all, but I must hasten onward.

Passing now to the middle of the seventeenth century, our attention is arrested by the establishment of *Cliniques* in Holland—that land more maligned and calumniated than any country in Europe, and yet a land around which more glorious recollections cluster than any land in the Eastern hemisphere; a spot which suffered more for civil and religious liberty than almost any part of the world—the country of William and Mary. The country which gave William and Mary to England, and by them the Toleration Act. The home of the oppressed, the refuge of the Puritans before they set sail across the broad Atlantic, for New England's rocky coast. The land which, when given a choice between money and a *University*, chose a University. A land of literature and letters, of science and art. A people who rescued their country from the sea. A land of dykes and canals, and a people who, when they had not land enough, pumped out a lake. And yet they call this people, with a sneer, phlegmatic Dutchmen. I cannot tell whence came the delusion, excepting that they, with all their industry, and prowess, and literature, knew how to enjoy life. The old men with their long pipes, and the venerable dames with their huge caps and their well stored larders, which they knew how to prepare; with easy consciences, and a sufficient rotundity of body to keep them warm in winter, and perhaps

a good glass of Holland gin for a night-cap. If you doubt what I have said, read Schiller, and Davies, and Motley, and Brodhead, and Prescott, and I know you will bear me out in my assertions. But to return.

In 1643, clinical establishments flourished in Holland. The most distinguished was that at Utrecht, under *Stræten*, and at Leyden, under *Huernius*. He was the first to teach bedside medicine upon a comprehensive scale. After examining closely the patient in presence of his pupils, he expatiated upon the nature of the disease, and also frequently caused post-mortem examinations to be made.

In addition to Huernius, we have De Laboe, who was the first *to publish* a connected series of bedside observations with remarks, and this system was pursued by his successors. To De Laboe, of Leyden, we are indebted for the first *Clinical Reports*. The next great clinical teacher is the illustrious Boerhave. Under his instruction some of the most distinguished physicians of Europe were educated, who scattered throughout the land the fruits of the good seed which had been sown by Boerhave at Leyden.

Now we find the spirit of proper medical instruction, based upon Clinical investigation, spreading to Scotland, and afterwards to Vienna, whose schools soon eclipsed the mother institution.

In Scotland, Dr. Rutherford, in 1748, commenced his course of Cliniques in the Royal Infirmary in Edinburgh, in which he was soon joined by other professors in 1757. I have in vain endeavored to ascertain when Cliniques were introduced into England and Ireland, where we know they at present exist in great perfection. I gather, however, from the histories of some of the older hospitals, that the Hospital of *St. Bartholemew*, was instituted in connection with the priory of St. Bartholemew in 1122, and after undergoing various modifications in its charter, in which Christ's Hospital, Bridewell, and St. Thomas were included, it became more perfectly established in 1752. Yet, from an historical oration, delivered at the opening of one of her sessions of lectures, I find that it was not before 1822 that John Albernethy founded the *present system* of lecturing, though Percival Pitt delivered occasional lectures some 80 years ago. St. Thomas' Hospital was founded in 1213, and after being subjected to many changes, was finally well endowed in 1782, to which a medical school was attached, but the exact date I cannot give.

Guy's Hospital was founded by Thomas Guy, of London,

in 1725, and in 1760 an arrangement was made within St. Thomas' Hospital, by which the privileges of both hospitals were extended to the pupils of each. In Dublin, the Meathe and Sir Patrick Dunn's Hospitals, and others have been open for years for Clinical instruction, but when they were opened I have not been able to ascertain.

Five years after the Cliniques had been originated by Dr. Rutherford, in Edinburgh, a Clinical institution was established at Vienna by Boerhave, where lectures were delivered by *Van Swieten*, who was succeeded by De Haen, who gave the results of his observations and experience to the public, supported at times by necrological examinations in his *Ratio Medendi*, a work of sixteen small volumes, in which he insisted upon the Hippocratic method of investigating disease. De Haen was followed by Stoll, who gave a still greater impulse to the Viennese Clinique.

While the Clinique was thus progressing in Vienna, we now find Dr. Cullen giving Clinical lectures in the Royal Infirmary of Edinburgh, assisted by Drs. Wyeth and Monro, and afterwards Gregory and Home.

The combined influence of the good effects of Cliniques as subservient to high toned medical instruction, in Holland, Vienna and Scotland, excited at this time, a general interest in Clinical study in other schools of Europe, in Gottingen and Sarthe, &c. In Italy in 1715, a Clinique was established by the Pope, in connection with the hospital at Rome, mid all the pomp and splendor of the Church, in the presence of cardinals and prelates, with orisons and vespers, and the full diapason of the multitude, Lancisci was inaugurated as Chief of the Clinique in the vast Hospital of the Holy Ghost. In passing, I may remark, that we find a species of Clinique attached to the Hospital of St. Francis in Padua, as far back as 1578, but of this we know very little, it probably, from all we can gather in regard to it, did not deserve the name, even in the most restricted sense.

In the University of Pavia, in 1781, Tissot and Scarpa occupied Clinical chairs; while at Bologna, Tommisini was occupied, and at Milan, Rasori.

In Spain, also, we find Cliniques established, and pupils were compelled to see a town practice of two years, before entering upon private duties.

In Russia Clinical instruction has been established since 1765, and continued upon a most extensive and vigorous scale. The more proficient Clinists, to a certain number, are

sent at the expense of Government, to other countries, to gather what is new in medical or surgical knowledge. In Prussia, it is said that Cliniques are more insisted upon, than even in Russia.

In the cursory glance which I have given you, gentlemen, of Clinical establishments, I have designedly said nothing of France. That country deserves especial commendation, for since their inception, the attention which has been paid to Clinical instruction, has vastly surpassed, as a whole, that of any other country on the globe. Previous to 1786, when reforms were introduced into the University of Caen, and a chair of practical medicine was attached to the Hotel Dieu, De Bois, physician to La Charité, gave Clinical lectures to a limited number of pupils.

During the convulsions of the state which lacerated France at the close of the 18th century, medicine alone remained stationary. Her votaries, alive to the interests of humanity, were ceaseless in their efforts to advance medical science, and during every lull in the political tempest, the subject was pressed upon the attention of the Government.

In the year 1794, Cliniques became attached directly to the faculties of medicine, and simultaneously the schools were provided with Clinical professors. Desault occupied a chair of Clinical surgery, and at the death of De Bois, Corvisart was appointed physician to La Charité, and in 1795 professor of Clinical medicine.

Corvisart being selected as medical adviser to the Emperor Napoleon, on the first day of the consulate, used that influence with the first consul which his position and talents afforded him, and which might have been expected from one so distinguished in the annals of medicine. Among the pupils of Corvisart we find Bayle Lannec and Baron Dupuytren. Pathology engaged his attention. Percussion, and investigations upon the diseases of the heart were illustrated at the bedside of the patient. During the professorship of Corvisart, many of the most eminent practitioners of succeeding years were educated, and thence dispersed throughout various parts of the empire. At this time more attention was paid to Pathological Anatomy, and post-mortem examinations were extensively and vigorously carried out. In addition to the Clinique in Paris, Fouqué founded Clinical instruction in the old and time honored University of Montpelier, in which he was ably seconded by Delpech. At *Strasburg*, after a great length of time, and much persuasion, an Obstetrical Clinique was founded.

Though France had been late in entering the Clinical field, yet she soon made up by her efficiency, what she had lost by tardiness.

The multitude of her Clinical institutions are unrivalled. There is not a city in the world where equally numerous and varied Clinical courses are delivered as in Paris.

The science of practical medicine owes much to the energy and industry of our Galic brethren. No where has there been so close an analysis of disease, and so scrutinizing investigation.

In later years the discoveries of the teachers of Germany, Austria, England, Ireland, America, have added much to our previous knowledge of Physiology, Pathology, and the general science of medicine. But for a long period before, France must be acknowledged to have done more than any other country, and all this may be attributed to the spirit of research, suggested by bedside observation and Clinical lectures.

PIROGOFF'S OPERATION.

As this operation at the ankle-joint has been recommended in an order from the Medical Director of the army, in preference to Chopart's or to amputation above the ankle, it may be interesting to our readers to see a description of that operation, as given by the author himself. He says:

"I commence my incision close in front of the outer malleolus, carry it vertically downwards to the sole of the foot, then transversely across the sole, and lastly obliquely upwards to the inner malleolus, where I terminate it a couple of lines anterior to the malleolus. Thus all the soft parts are divided at once quite down to the os calcis. I now connect the outer and inner extremity of this first incision by a second semilunar incision, the convexity of which looks forward, carried a few lines anterior to the tibio-tarsal articulation. I cut through all the soft parts at once down to the bones, and then proceed to open the joint from the front, cutting through the lateral ligaments, and thus exarticulate the head of the astragalus. I now place a small, narrow amputation saw obliquely upon the os calcis, behind the astragalus, exactly upon the sustentaculum tali, and saw through the os calcis, so that the saw passes into the first incision through the soft parts. Saw

carefully, or the anterior surface of the tendo achillis, which is only covered by a layer of fat, and a thin fibrous sheath, might be injured. I separate the short anterior flap from the two malleoli, and saw through them at the same time close to their base. I turn this flap forwards, and bring the cut surface of the os calcis in opposition with the articular surface of the tibia. If the latter be diseased, it is sometimes necessary also to saw off from it a thin slice with the malleoli."

He thus sums up its absolute and relative merits:

"1. The tendo achillis is not dividid, and so we avoid all the disadvantages connected with its injury. 2. It also follows that the base of the posterior flap is not thinner than its apex, while the skin on the base of the flap remains ununited with the fibrous sheath of the tendo achillis. 3. The posterior flap is cap-like, as in Syme's method, and its form is therefore less favorable to a collection of pus. 4. The leg, after my operation, appears an inch and a half (sometimes even more) longer than in the three other operations (Syme, Baudens, Roux), because the remnant of the os calcis left in the flap, as it unites with the inferior extremities of the tibia and fibula, lengthens them by an inch and a half; and 5. Serves the patient as the point of support."—*Reporter.*

PENALTY OF OVERWORK.

Overwork, and its penalty, worn out brain and early death, are common enough amongst ourselves, but perhaps there is no better example of the beginning, middle, and end of such a case than is afforded by the late Augustus Welby Pugin, a celebrated English architect, and narrated in Mr. Ferry's very interesting "Recollections of Pugin." He was "delicate as an infant;" when at school "he showed remarkable aptitude for acquiring knowledge," and whether "in Greek, Latin, mathematics, or any other branch of education, would learn in twenty-four hours what it took other boys many weeks to acquire;" he was quick, fluent in speech, voluble, dogmatic, and vehement in manner; he hated children's society, and loved that of his elders. From his precocity of talent, he was largely employed as an artist when a mere stripling, and was designing George the Fourth's furniture at Windsor when

sixteen. He entered into business, set up an establishment of artist workmen, got into pecuniary difficulties, and was arrested when eighteen. He married; and was husband, father, and widower before he had completed his twentieth year. Then followed twenty years of the most intense excitement and exhausting labor; rapid journeys; a second and third marriage, and two, at least, most bitter disappointments in love between them; a change of religion, and a perfect tempest of controversial pamphleteering. Habits of life, of rapid and restless locomotion, and of severe labor when at home; rising at six; two hours' hard work before breakfast, "which seldom lasted more than *seven minutes*;" hard work again till dinner, "when his fare was of the simplest description, without wine or malt liquor, and this meal generally lasted *a quarter of an hour*;" after dinner more work till bed time; "when he returned from town he always wrote letters in the railway carriage." What wonder that at the age of forty he became irritable and nervous, and quarrelled with his oldest friends; or, as he described himself, "thin, trembling, hollow-eyed, changed, and yet working tremendously at times. Soon after, meeting his Medical attendant at Ramsgate, where he lived, he told him a story of the foundering of five merchant ships, which was sheer hallucination; this was followed speedily by complete mental decay and early death, just at the age when experience begins to ripen, and a man's early work ought to bear fruit for himself, his family, and the world. Pugin is a man whose influence is seen and felt in every street and every house, in the substitution of the bold, picturesque, Gothic outlines, and harmoniously colored materials of modern buildings, for the monotonous pseudo-classic of the last generation; in the graceful forms of domestic furniture, and the truer and more natural school of art. If he had worked less, taken more time to his meals, and quieted his brain with tobacco or wine, so as not to live so fast, he might, perhaps, have been living now. —*London Medical Times.*

THE AGE OF UTERINE DISEASE.

It has been remarked by a popular writer that this is "the age of uterine disease." In the medical profession, and with the other sex, the assertion certainly is not wide of the truth.

Uterine diseases have been the all-engrossing theme of a large class of practitioners for many years. Volumes have been written upon these affections, with chaste or unchaste illustrations of every grade, from the secret and undetermined forms of sterility, to the gravest forms of cancer; interminable discussions have been held upon the ever-varying phases of the diseases of this organ; and students of uterine pathology have always been rewarded with rich discoveries in fecund placer. If we were to believe all that is written of the inherent and acquired diseases of the organ, on the integrity of which depends the perpetuation of our species, how surely fated to early extinction would seem the human race? If it be perpetuated, it would be through decaying germs that must give origin to imperfect forms and decrepid generations.

But while it is true that uterine diseases exist and form a large class of affections which are capable of destroying the health and happiness of the sex, can any observant practitioner doubt that the uterus is, in our time, the scapegoat of many a latent malady of the female that is not correctly diagnosticated? Said an eminent obstetrician of this city: "If I should confirm the diagnosis in every case that is sent to me from the country, as one of undoubted uterine disease, I could add thousands of dollars to my annual income." He was emphatic in the expression of his opinion, that medical men, nowadays, conveniently referred to the womb a vast number of affections of which they either had not the tact or knowledge to determine the seat and nature. He examined the consulting patient with an habitual anticipation of finding a normal condition. Such statements are startling, and indicate a vast amount of carelessness or ignorance, or both, in the medical profession. In general, no diseases are more readily susceptible of accurate diagnosis than those peculiar to the uterus. They belong, in fact, to the diseases distinguished by the French as External Pathology. If there is an ulcer on the parts it is seen as distinctly as if on the leg; if there is unnatural enlargement, it is as detectible as a swollen finger; if there is a tumor of any kind or description, it is as demonstrable as a similar growth on the face; if there is displacement in auy direction, it as as apparent as a dislocated limb. Indeed, a physician, with all the mechanical aids which we now possess for investigating uterine diseases, cannot be held guiltless of culpable ignorance who pronounces falsely upon the presence of grave lesions. He has no excuse for diagnosticating an ulcer when there is

none; or prolapsus, when the organ is in a normal position; os anteflexion or retroflexion, when neither exists. And yet these false opinions are, it must be admitted, daily given, greatly to the discredit of many a physician in the eyes of an honest and competent expert. We believe that these errors are generally the result of carelessness. There is in many, also, a disposition to give always a definite opinion, especially in an obscure case; and it is convenient to fix upon an organ which has the popular acknowledgment of being the happy abode of all the undiscovered maladies of the female organization. The uterus has now come to enjoy the relative position of the liver in its ability of concentrating within itself all the undefinable diseases to which the sex are subject. Although the term "liver complaint" has now become obsolete in the nomenclature of many practitioners, yet its place is more than supplied by the phrase "uterine disease."

Aside from the humiliation of professional character which results from such ignorance and carelessness, there are other evils of a very different kind that must not be overlooked. We have thereby opened a large and fertile field for the special advantage of quackery in its lowest and most revolting forms. It is not strange that the interesting and interested subjects of the affections have become alarmed at the almost universal prevalence of the belief in the disabilities peculiar to their unfortunate sex. Thousands of nervous ladies suffering from some slight and obscure derangement of digestion, or other departure from health, are secretly informed by friends that the womb, that mysterious organ, with its innumerable susceptibilities, is liable to an infinite number of strange disorders. At once a mania for an investigation seizes the individual victim, which nothing but the manipulations with the speculum can relieve. And alas! too often instead of relieving a proper apprehension on the part of the patient, even though she is correctly informed that the womb is not diseased, a new source of excitement is established which is far more dangerous to her happiness than actual disease. If her aliments are lightly treated by her medical attendant she readily falls into the hands of a vulgar irregular, and becomes the dupe of his villanous machinations. In more than one instance has the profession of this city witnessed a uterine furor, created by an unblushing quack, which neither reason nor modesty could control. And but recently we noticed an instance in which a most ignorant pretender

opened a hospital for the treatment of uterine tumors, in one of the most intelligent and moral communities of an interior state; crowds of women flocked to him, and all were found to be suffering from tumors of the womb. By accident a patient more intelligent than others, discovered that the tumor was a piece of raw meat, which was introduced at the first examination, and which, after long treatment, was removed to the great relief of the patient.

It is time that uterine pathology was thoroughly understood by every practitioner. It is not, as we have already intimated, difficult to learn so thoroughly that mistakes in diagnosis will be only exceptions, and not, as now, the rule.—*American Medical Times.*

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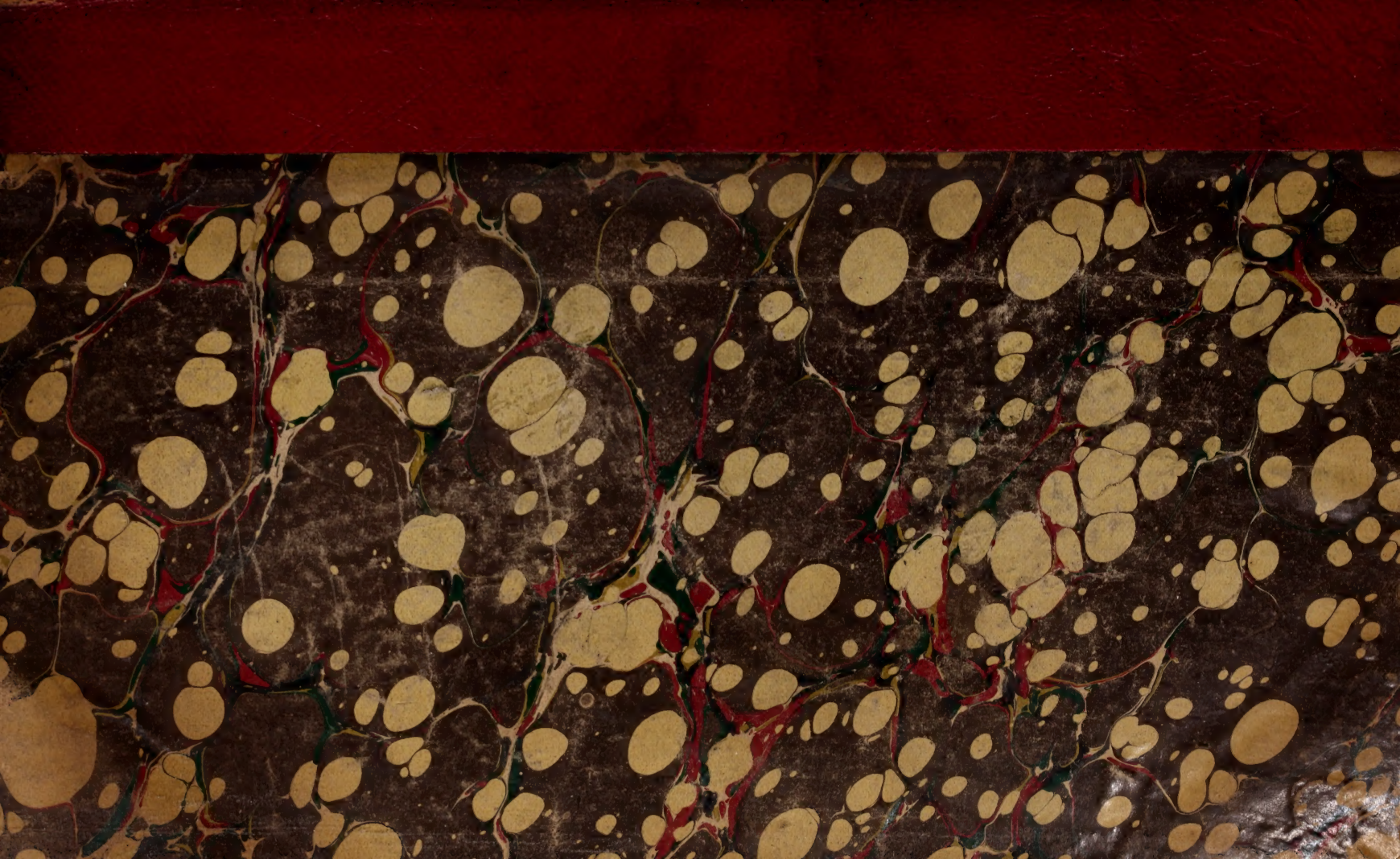
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